NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

UNDERSTANDING THE CURRENT 30-YEAR SHIPBUILDING PLAN THROUGH THREE MODELS

by

Patrick E. Blind

December 2014

Thesis Advisor: Philip Candreva
Second Reader: Susan Hocevar

Approved for public release; distribution is unlimited

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704–0188

1. AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	December 2014	Master's Thesis

4. TITLE AND SUBTITLE
UNDERSTANDING THE CURRENT 30-YEAR SHIPBUILDING PLAN THROUGH THREE MODELS

5. FUNDING NUMBERS

6. AUTHOR(S) Patrick E. Blind

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
Naval Postgraduate School
Monterey, CA 93943-5000

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES)
N/A

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.

12a. DISTRIBUTION / AVAILABILITY STATEMENT
Approved for public release; distribution is unlimited

12b. DISTRIBUTION CODE
A

13. ABSTRACT (maximum 200 words)

The United States Navy is bound by federal law to annually submit a long-range plan for the construction of naval vessels. As the report represents a possible vision of the future fleet, there is much discussion on its contents and how and why the Navy settled on the numbers contained in the proposal. Viewing the plan as a decision reached by a government entity allows a thorough investigation of the matter utilizing Graham Allison's approach from his work, Essence of Decision. Through the lenses of rational actor model, organizational behavior model, and government politics model, the Annual Long-Range Plan for Construction of Naval Vessels for FY2015 will be analyzed to better understand the requirements, organizational routines, major players, and special interests that ultimately result in a plan submitted to congress. Through this analysis, a better understanding of the processes, procedures and inner workings of the Navy will become apparent and show the FY2015 Long Range Plan is rather complex and beholden to many stakeholders, each wishing to exert influence over the outcome.

14. SUBJECT TERMS
ships, shipbuilding, ship procurement, rational actor, organizational behavior, government politics

15. NUMBER OF PAGES
117

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	UU

NSN 7540–01-280-5500

Standard Form 298 (Rev. 2–89)
Prescribed by ANSI Std. 239–18

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release; distribution is unlimited

UNDERSTANDING THE CURRENT 30-YEAR SHIPBUILDING PLAN THROUGH THREE MODELS

Patrick E. Blind
Lieutenant Commander, United States Navy
B.S., U.S. Naval Academy, 2003

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF BUSINESS ADMINISTRATION

from the

NAVAL POSTGRADUATE SCHOOL
December 2014

Author: Patrick E. Blind

Approved by: Philip Candreva
Thesis Advisor

Susan Hocevar
Second Reader

William Gates
Dean, Graduate School of Business and Public Policy

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

The United States Navy is bound by federal law to annually submit a long-range plan for the construction of naval vessels. As the report represents a possible vision of the future fleet, there is much discussion on its contents and how and why the Navy settled on the numbers contained in the proposal. Viewing the plan as a decision reached by a government entity allows a thorough investigation of the matter utilizing Graham Allison's approach from his work, *Essence of Decision*. Through the lenses of rational actor model, organizational behavior model, and government politics model, the *Annual Long-Range Plan for Construction of Naval Vessels for FY2015* will be analyzed to better understand the requirements, organizational routines, major players, and special interests that ultimately result in a plan submitted to congress. Through this analysis, a better understanding of the processes, procedures and inner workings of the Navy will become apparent and show the FY2015 Long Range Plan is rather complex and beholden to many stakeholders, each wishing to exert influence over the outcome.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF FIGURES

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF TABLES

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF ACRONYMS AND ABBREVIATIONS

BCA	Budget Control Act
CNO	Chief of Naval Operations
CRS	Congressional Research Service
DOD	Department of Defense
DON	Department of the Navy
DSG	DOD Defense Strategic Guidance
FSA	force structure assessment
FY	fiscal year
GFMAP	Global Force Management Allocation Plan
LCS	littoral combat ship
NAVSEA	Naval Sea Systems Command
NVR	Naval Vessel Register
OB	organizational behavior
QDR	Quadrennial Defense Review
OPNAV	office of the Chief of Naval Operations
PPBE	planning, programing, budgeting, execution
SSC	small surface combatant
SECDEF	Secretary of Defense
SECNAV	Secretary of the Navy
SOP	standard operating procedure
SSC	small surface combatant
USFLTFORCOM	United States Fleet Forces Command
USMC	United States Marine Corps

THIS PAGE INTENTIONALLY LEFT BLANK

ACKNOWLEDGMENTS

I would like to thank Professors Philip Candreva and Susan Hocevar for their support and guidance in writing this thesis. Without their course corrections and insight, this document would not be possible. I would also like to thank Connor and Samantha for making me smile whenever I walked in the door at home. And of course, I need to thank my wife, Stephanie. Nothing would have been possible without her love and support.

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

A. WHAT IS A SHIP ANYWAY?

In March of 2014 the Navy updated a Secretary of the Navy instruction (SECNAV) on "General Guidance for the Classification of Naval Vessels and Battle Force Ship Counting Procedures" (Secretary of the Navy, 2014). It had been just over three years since the last update to this instruction but many outside of the Navy were unhappy with the change (Freedberg, 2014d). Under the new instruction and counting rules, the Navy immediately added 10 ships to its Battle Force inventory bringing that number to a grand total of 290. Much of the controversy arose because the new method moves to include hospital ships that have no offensive capability in the battle force count. Opponents of the change argued that a ship that cannot fight should not be counted.

With a target goal of 306 ships, these new counting rules appeared to give the sea service a quick boost towards its goal. Unfortunately, the remaining gap can only be filled by long term ship acquisition. Because ships are both costly and require a long time to build, the Navy plans 30 fiscal years (FY) in advance to meet its requirements. Each year, it is legally required to submit a long range proposal for the construction of naval vessels to the Congress (Long-range plan for construction of naval vessels, 2010). This long range or "30-year" shipbuilding plan outlines the types of ships being procured as well as potential pitfalls in the plan. Yet just like the change in ship counting rules, the 30-year plan is often full of political bickering. The Navy must balance the requirements set forth in guiding national security documents with the fiscal environment and the need to maintain certain core capabilities both inside and outside of the Navy. Historically, this plan has been criticized for having too favorable an outlook on future cost or failing to actually achieve the Navy's target battle force inventory. Therefore, an important question to ask is "Why and how did the Navy arrive at and settle on the *Annual Long-Range Plan for Construction of Naval Vessels for FY2015*?" That is the question that this thesis endeavors to answer.

B. HOW TO ANALYZE A DECISION

Graham Alison broke new ground with his book *Essence of Decision* about the 1962 Cuban Missile Crisis (1971). In his work, he developed a new methodology of evaluating and understanding decisions. Years later, a second edition partnering with Phillip Zelikow provided even more insight into what happened behind closed doors in the White House. Graham looked at three different decisions made during the crisis: Why did the Soviet Union place strategic offensive missiles in Cuba? Why did the United States respond with a naval quarantine of Soviet shipments to Cuba? Why did the Soviets withdraw their missiles (Allison & Zelikow, 1999). Historically, these questions have been answered with a "Rational Actor" decision approach allowing the United States and the Soviet Union to act as independent actors with unified purpose and intention. Allison devised a method by which he would ask the same questions but attempt to answer them with two additional decision models; an organizational behavior (OB) model and a government politics (GP) model.

Using *Essence of Decision* as a template, the current 30-year ship construction plan was analyzed through the three decision models (Allison & Zelikow, 1999). The most recent plan submitted by the Navy to Congress is formally known as the *Annual Long-Range Plan for Construction of Naval Vessels for FY2015* but will be referred to as the *FY2015 Long Range Plan* for the remainder of this thesis (Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014). The mention or analysis of previous plans will utilize the appropriate FY to ensure there is no confusion (Deputy Chief of Naval Operations (Integration of Capabilities and Resources)(N8), 2013) (Deputy Chief of Naval Operations (Integration of Capabilities and Resources) (N8), 2012).

C. DEFINING A DECISION

In order to effectively apply the three models to the *FY2015 Long Range Plan*, it must first be viewed as a decision. Therefore, part of this thesis will also define the *FY2015 Long Range Plan* as a standalone decision. Using research from Lori Franz and Michael Kramer (2010), the aspects and characteristics of the decision will be examined

and discussed to better understand the importance of the document and better understand how the three models will reveal different characteristics.

D. END STATE

Ultimately, the goal of this thesis is a better understanding of how the Navy balances multiple commitments and still completes its mission. In a world where money is extremely tight and operational requirements extremely demanding, designing an effective shipbuilding plan is no small feat. Hopefully, the three decision lenses will allow anyone interested in the Navy's future to see beyond the numbers and understand the deeper reason the Navy ultimately decided on the *FY2015 Long Range Plan*.

THIS PAGE INTENTIONALLY LEFT BLANK

II. EXPLANATION OF THE 30-YEAR SHIPBUILDING PLAN

A. LEGAL REQUIREMENTS

The requirement of the Navy to provide Congress with a long range shipbuilding plan is codified in title 10 of USC. (Long-range plan for construction of naval vessels, 2010)

> § 231. Long-range plan for construction of naval vessels
>
> (a) QUADRENNIAL NAVAL VESSEL CONSTRUCTION PLAN—At the same time that the budget of the President is submitted under section 1105(a) of title 31 during each year in which the Secretary of Defense submits a quadrennial defense review, the Secretary of the Navy shall submit to the congressional defense committees a long-range plan for the construction of combatant and support vessels for the Navy that supports the force structure recommendations of the quadrennial defense review.

Beyond the quote above, section 231 has several subsections outlining additional requirements. The first among these outlines the planning timeline. The Navy is required to provide a "detailed construction schedule of naval vessels for the 10-year period beginning on the date on which the plan is submitted" (Long-range plan for construction of naval vessels, 2010). Beyond that the next 10 years should provide a "probable construction schedule" and the final 10 years need only be a "notional construction schedule" (Long-range plan for construction of naval vessels, 2010).

The next requirement outlined is arguably one of the most challenging and provides the most constraint: funding. Each one of the 10 year planning periods needs to have its own assessment with regard to annual funding necessary to carry out the construction schedule. Furthermore, the Director of Cost Assessment and Program Evaluation must evaluate any potential risks associated with the schedule including anything relating to "operational plans, missions deployment schedules and fulfillment of the requirements of the combatant commanders" (Long-range plan for construction of naval vessels, 2010).

Section 231 also addresses the need that the plan be in accordance with section 5062(b) of title 10 which states:

> (b) The naval combat forces of the Navy shall include not less than 11 operational aircraft carriers. For purposes of this subsection, an operational aircraft carrier includes an aircraft carrier that is temporarily unavailable for worldwide deployment due to routine or scheduled maintenance or repair.

There is also an allowance for the times when the budget assessment is not favorable to completing the shipbuilding plan:

> (d) ASSESSMENT WHEN BUDGET IS INSUFFICIENT.— If the budget for a fiscal year provides for funding of the construction of naval vessels at a level that is less than the level determined necessary by the Director of Cost Assessment and Program Evaluation under subsection (b)(5), the Secretary of the Navy shall include with the defense budget materials for that fiscal year an assessment that describes and discusses the risks associated with the budget, including the risk associated with a reduced force structure that may result from funding naval vessel construction at such a level.

The remaining portion of section 231 outlines requirements from the Congressional Budget Office to report on the Navy's plan as well as the procedures to be followed should the number need to be modified.

B. FY2015 CURRENT SHIPBUILDING PLAN

When the Navy released its FY2015 Long Range Plan, the Deputy Secretary of Defense, the Honorable Robert O. Work, provided a cover letter to each chairman and ranking member of the Congressional Armed Service and Appropriations Committees. The letter is slightly longer than one page and addresses the major aspects of the plan. Mr. Work highlights the plans commitments to the *Quadrennial Defense Review* (QDR) and Defense Strategic Guidance (DSG) but quickly addresses his concerns over the Budget Control Act of 2011 and the potential impact it would have on the plan. The cover letter closes by quickly addressing the new method of ship counting and a commitment to continue his work with the Navy in order to arrive at the appropriate number of vessels

The FY2015 Long Range Plan is broken into nine parts with five appendices. The chapters are well organized and comply with the legal requirements set forth in Title 10, section 231. The table of contents can be viewed in Figure 1. The outline of the document

is similar to previous years but for FY2015 does not contain an executive summary and contains additional appendices to further highlight potential issues.

Long-Range Plan for Construction of Naval Vessels for FY2015

Table of Contents

Figure 1. FY2015 Long Range Plan Table of Contents (from Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014)

The first two parts of the plan highlight the legal requirements and the guiding principles of what the Navy utilized in planning for shipbuilding: the QDR, the DSG and the Navy's own 2012 Force Structure Assessment (FSA).

Part three begins to delve more in depth into the new method of ship counting and the 2012 FSA. The purpose of the new SECNAV instruction on ship counting rules was to better align the battle force with the requirements of the Geographic Combatant Commanders which are resourced through the Global Force Management Allocation Plan (GFMAP). This move allows some vessels, such as hospital ships and patrol craft, to be counted in the battle force inventory based on the recommendation of the Chief of Naval Operations and the approval of SECNAV. The new counting rules have had the largest impact in the area of the small surface combatant. Traditionally the frigate filled this role but due to the retirement of the frigate and the Littoral Combat Ship's slow integration, both patrol craft and mine warfare ships have been added to this number.

The 2012 FSA was the internal Navy study that determined a requirement of 306 ships to fully execute its missions. This number has been determined to achieve the following: "(1) aligns global presence requirements with national priorities; (2) increases forward basing/stationing of ships and systems; (3) improves payload capacity for SSNs replacing SSGNs and; (4) increases use of rotational civilian and military crews, providing more forward presence per ships" (Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014). The breakdown of the 306 ship Navy can be seen in Figure 2.

The FSA objective for 306 ships includes:

- 12 Fleet ballistic missile submarines;[3]
- 11 nuclear-powered aircraft carriers;
- 48 nuclear-powered attack submarines;
- 0-4 nuclear-powered cruise missile submarines;[4]
- 88 large, multi-mission, surface combatants;
- 52 small, multi-role, surface combatants;
- 33 amphibious landing ships;[5]
- 29 combat logistics force ships; and
- 33 support vessels.

This report outlines the Long-Range Naval Vessel Construction Plan necessary to build and maintain the battle force inventory outlined above and describes the resources necessary to implement this plan. As long as the Navy is able to procure the ships reflected in the plan, we will have a battle force that meets QDR requirements, and that will adequately sustain the national shipbuilding and naval combat systems design industrial bases.

---

[3] DoD plans to replace the 14 OHIO Class SSBNs with 12 new SSBN(X)s starting in the late 2020s.

[4] The 4 SSGNs now in service will retire in the mid-2020s. The DON is exploring the possibility of inserting VIRGINIA Payload Modules, a hull section with four large diameter payload tubes, in Block V VIRGINIA Class attack submarines to begin to offset the future loss of SSGN strike capability.

[5] The strategic review focused primarily on sustaining Amphibious Ready Groups/Marine Expeditionary Units forward in the Western Pacific and Persian Gulf in a crisis response role. It took risk in generating the 30 operationally available ships necessary to conduct a 2.0 Marine Expeditionary Brigade (MEB) assault echelon forcible entry operation. To lower risk, this plan strives to maintain an active inventory of 33 active amphibious ships.

Figure 2. Breakdown of the 306 ship Navy (from Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014)

The plan then moves into assumptions and actual numbers of ships it hopes to construct and in which FY it expects them to roll out of the shipyards. The plan continues by highlighting some of the funding problems with the plan and other potential risks that the Navy sees in the future. The appendices provide more detailed breakdown of the larger risks inherent in the plan as well as specific discussions on each of the type of ship the Navy plans to construct. Of note, Appendix three, the "Estimated Total Cost of Construction for Each Vessel Contained in the Annual Long-Range Plan for Construction of Naval Vessels for FY2015" is of limited Distribution and was unavailable for this thesis.

C. MAJOR PLAYERS

The list of stakeholders in the 2015 Long Range Plan is rather large. Of course the Navy has the largest stake in the plan, but there are others both inside and out of the Navy that zealously monitor the details of the plan. Internally, the Navy's various communities, Aviation, Surface, and Submarine represent their own sub-interests, while N96, Naval Sea Systems Command (NAVSEA), and Fleet Forces work to plan, build and utilize future assets respectively. Outside of the Navy the Marine Corps has an interest in seeing the continued production of amphibious vessels while various elements of the shipbuilding industry all want to land specific Navy contracts. And finally the members of Congress hold a large stake in what the Navy chooses to build especially if that construction will take place in a Congress-member's district.

D. INHERENT CONSTRAINTS OF THE 30 YEAR PLAN

While it would be easy to say that the Navy needs 600 vessels to fulfil the needs of the nation, that number is currently unattainable. The largest constraint inherent in the shipbuilding plan is financial. Naval vessels are massively expensive and the Navy acknowledges that construction of future vessels could be cost prohibitive. Yet even if money were not a problem, there is the inherent constraint of the shipbuilding industry. There are only so many shipyards that can construct a nuclear submarine, so throughput is limited. Beyond these two constraints is the blessing and curse of technology. As technology improves, some argue fewer ships can fulfil the same mission. Yet one ship can still only be in one place at any time and so you need many more if you are going to project power with a Navy.

III. EVALUATION OF THE 30-YEAR PLAN AS A STAND ALONE DECISION

A. WHAT IS A DECISION?

The *Handbook of Decision Making*, (Nutt and Wilson, 2010) provides a detailed look at the world of decisions. Internal to this work is a chapter examining the various dimensions of decisions and providing a way to better classify and understand decisions. This chapter, by Franz and Kramer is used below to analyze the 30 year plan. In addition, it provides a useful definition of a decision. In this thesis a decision will be defined as "a commitment to a future action" (Franz & Kramer, 2010).

B. THE 30-YEAR PLAN AS A DECISION

Clearly the FY2015 Long Range Plan meets the definition of a decision. It is also important to understand that the action taken by the Navy in the future is not always representative of the decision that was presented in the plan. As history has shown, the Navy has frequently failed to execute its previous shipbuilding plans (O'Rourke, 2014b). Although the Navy does not always fulfill the plan, and the plan evolves year to year, the focus of this chapter is on the nature of the decision itself, not whether the Navy demonstrated commitment to the plan. Those concerns are discussed in later chapters.

All sources utilized in this section are reported as described in Franz and Kramer (2010). A study by Gorry and Scott Morton (1971) looked to categorize decisions as structured, semi-structured or unstructured and then further define organizational decisions as a response to "needs for operational control (routine, repetitive, task oriented), managerial control (acquiring and using resources to achieve goals), or strategic planning (addressing long-term goals and resources)" (Franz & Kramer, 2010). In this approach the FY2015 Long Range Plan could be seen as strategic planning to manage requirements and goals for the foreseeable future.

A different view of decisions by J. Frank Yates allows for some overlap in types of decisions. His assessment was that there are three types of decisions: choices, evaluations, and constructions (Franz & Kramer, 2010).

> In a choice decision, the decision maker considers a well-defined set of alternatives, selecting the best one or more from this set. In an evaluation decision, the decision maker determines the worth of alternatives, selecting from among those the one(s) with the greatest worth. A construction type decision entails the act of designing the best alternative given a limited set of resources.

This view on different types of decisions also fits the FY2015 Long Range Plan well. Following this model, the plan would be a construction type decision due to the nature of limited resources, though there are also elements of an evaluation decision. The Navy knows what it wants to build but is forced to choose between which type of ships it can build due to limited funding. This conflict is examined again in later chapters when the Navy fights internal struggles over resources and requirements.

Paul Moody's work recommends a decision be classified by its importance or impact on the stakeholders. Decisions should be evaluated over five factors: magnitude and length of commitment, flexibility of the planning involved, goals and premises, nature of the data as quantifiable, and finally the measure of the human impact of a decision. Moody (1983) also provides tools to better ascertain certain characteristics that can help outline a decision:

> (1) How the decision may influence the future (futurity); (2) the difficulty by which the decision could be reversed (reversibility); (3) the extent of the impact of the decision (impact); (4) the quality of the decision with respect to various stakeholders (quality); and (5) the frequency with which the decision is made (periodicity). (Franz & Kramer, 2010)

Subjecting the FY2015 Long Range Plan to Moody's model suggests a decision of extreme importance. The length of commitment is 30 years, the data are easily quantifiable, and the potential for human impact is easily huge if the Navy were to find itself in a major conflict. On the other side, there is a large sense of flexibility to what the Navy can ultimately build in ten years and beyond due to the fact that this plan is revised annually. In a political game this flexibility could allow players an "out" – a concept to explore during the later chapters.

Robert Clemen (1996) argues that the difficulty of a decision can primarily be traced to its complexity. "Complexity is created when a myriad of issues, data sources

and/or stakeholders must be considered, and/or when a large number of alternatives and outcomes are possible" (Franz & Kramer, 2010). Often the more complex an issue, the more likely analytical studies will be required. Subsequently, a decision can be more difficult if there is uncertainty in regard to any data, future events, or outcomes. And finally, with more perspectives available and the potential for alternate outcomes based on these perspectives, the difficulty level can also be increased.

Following Clemen, annual shipbuilding plan produced by the Navy checks many, if not all of these boxes and could easily be considered a difficult decision. The level of analysis put into the decision takes hundreds of full time analysts and action officers and the host of issues facing the Navy vastly increases its complexity. Because the Navy cannot predict the future levels of funding or the direction a new set of leadership will take the defense of the country, the future is often a place requiring much guesswork due to its uncertainty. And because there are a host of players involved in the crafting of this document, each with a different ideal outcome, the end result is clearly a "hard" decision.

While every decision has unique qualities, quite often decisions are related to other previous or future decisions. An individual decision may be part of a group of decisions, or it may be required due to decisions that had been made in the past (Franz & Kramer, 2010). In the case of the annual shipbuilding plan, we see a decision that is affected by many other decisions outside the scope of this paper. The QDR and DSG outline what the plan must contain and strive to support. Funding from Congress puts limits on what the Navy can spend and the shipbuilding industry provides a menu of what they can actually build. In addition, the frequency of the plan provides an interesting descriptor. As an event that is required to repeat each year it is inherently linked to past decisions.

One of the most applicable frameworks to the FY2015 Long Range Plan was assembled by John Hammond (1999) in an effort to outline the steps required in making a decision. His eight steps included the following; (1) problem definition, (2) decision objectives, (3) alternative generation, (4) anticipated outcomes, (5) trade-offs between alternatives and outcomes, (6) assessment of uncertainty, (7) risk tolerance, (8) impact on related decisions (Franz & Kramer, 2010). This outline closely mirrors the table of

contents to the FY2015 Long Range Plan. The purpose of the plan is explained as well as the objectives in the opening paragraphs. Further into the document different scenarios based on funding are explained and there is an entire section devoted to risk analysis. These eight steps indicate a rational decision making process.

One of the most important aspects of a decision would be its success or failure. Unfortunately because this decision spans 30 years it is impossible to measure the success of the current plan today. In its place you can look at the quality of the decision. Yet with the annual shipbuilding plan, this becomes problematic as well. Comparing a decision's outcome to an expectation prior to making the decision "provided that an identifiable goal for the outcome was established prior to the decision" is a method of measuring quality proposed by Paul Moody (Franz & Kramer, 2010). In the absence of concrete goals the "satisfaction of the decision maker and/or stakeholder" is an appropriate substitute. Of course this too is problematic for the Navy when discussing the FY2015 Long Range Plan. The Navy as the decision maker may be extremely satisfied with the result, but many in Congress (as a stakeholder) may contend that the Navy was extremely flawed in its approach (O'Rourke, 2014b). This relates to the problem of having so many players in the game and each one hoping for a different outcome.

Though not currently possible with the FY2015 Long Range Plan it is possible to analyze the success of an older 30 year shipbuilding plan along the lines of what Samuel Trull (1966) proposed. Viewing success as a factor of decision quality and implementation, he argued that a quality decision: fits within operational constraints, is completed on time, utilizes appropriate information, is made at the appropriate level, is clearly understood by those with the task of implementation, and implementers have the means to actually carry it out (Franz & Kramer, 2010). While the FY2015 Long Range Plan does meet many of the quality standards that Trull outlines, it is impossible to measure its ability to be carried out for the time being. Perhaps in 10 years and after ten different iterations, it will be possible to see if the current plan is a "successful decision."

C. HOW TO MOVE FORWARD IN UNDERSTANDING THE DECISION

The FY2015 Long Range Plan holds many of the characteristics that scholars have attributed to decisions. It nicely fits some models proposed while needing some adjustment to fit others. The research generally points to the plan as a complex decision with significant potential for impact mitigated only by the annual frequency of its occurrence. If the planners are unsatisfied with what they have presented, they can always adjust the following year.

While the discussion above has focused on the characteristics of a decision, the following chapters will take a different approach. Looking at the FY2015 Long Range Plan through three descriptive models will provide a detailed examination of the decision process. Each model tells the same story from a different perspective allowing added insight regarding the why and how the Navy came to this year's decision.

THIS PAGE INTENTIONALLY LEFT BLANK

IV. APPLICATION OF THE RATIONAL ACTOR MODEL

A. EXPLANATION OF THE RATIONAL ACTOR MODEL

The first model utilized to analyze the FY2015 Long Range Plan is the classic, or Rational Actor Model (RAM). As Graham Allison and Phillip Zelikow explain in their book, this is the default point of view taken by many when trying to explain the action of a government. The model assumes that any action or decision made by a government is rational and reflects a unity of action centered on purpose and intention (Allison & Zelikow, 1999). Rationality can be viewed as a concept where choices are made consistently and at the same time utilize a value maximizing approach.

Further expanding on the idea of rationality, Allison provides for two types utilized by political scientists: comprehensive rationality and bounded rationality. In both situations, the actor is understood to review different courses of action and choose the path that maximizes utility. Yet in the comprehensive view the actor is able to analyze ***all options, all alternatives and all consequences*** to make a choice while the bounded rationality theory acknowledges the limits of human capabilities, knowledge, and capacity. Therefore, bounded rationality allows for some values and beliefs to creep into the actor's decision making. This distinction is important because it allows for actors to choose a course of action that others may view as irrational.

Oftentimes the actions of an actor are represented by some form of personification. For example, a headline reading, "US moves Navy ships into the Black Sea" implies the U.S. is a rational actor controlling the ships. The United States as a whole is viewed as the actor behind the decision when in fact the decision to move the vessels may have come at the request of the Navy for an exercise, European Command, from the National Security Council, or from the President himself. While the Rational Actor model is normally utilized to explain state action, the model will be modified to allow a department inside of the government to assume the role of the actor.

B. THE NAVY AS A RATIONAL ACTOR

For the first model applied in this thesis, the United States Navy plays the role of rational actor. This view has some precedent that comes from the legal requirement in title 10, U.S.C. section 231 that the Navy shall forward its long range construction plan annually to the Congress (Long-range plan for construction of naval vessels, 2010). When analyzing the decisions and actions of a Rational Actor, Allison provides a simplified guide of assumptions to better understand what you are dealing with. The following assumptions will be made (Allison & Zelikow, 1999):

- The FY2015 Long Range Plan is the action of the Navy
- The Navy is a unified Actor
- The Navy has a coherent utility function
- The Navy acts in relation to threats and opportunities
- The Navy's action is value maximizing (or expected value maximizing)

When first reviewing the *Annual Long-Range Plan for Construction of Naval Vessels for FY2015* it becomes apparent that the Navy does its absolute best to present a cohesive front from which to defend its plan (Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014). The plan outlines the Department of the Navy's (DON) position devoid of any evidence of internal discussion or conflict. Though there are identified priorities, there is no identified struggle between groups inside the Navy. While certain news sources and speeches suggest constant political maneuvering inside of the Navy, the Department of Defense, and the Federal government as a whole, such politicking are not part of the rational actor assumptions; however, these factors will be the discussion of future chapters.

C. OUTLINE FOR THE RATIONAL ACTOR

The FY2015 report outlines from the beginning its guidelines and chosen self-metrics. If we are to view the Navy as a rational actor, these parameters are essential in understanding how and why that actor made his decision. It is at this point where the methodology developed in *Essence of Decision* can be employed (Allison & Zelikow, 1999). This outline below has been taken directly from *Essence of Decision* and then

adjusted and compressed to better represent a branch of a government rather than the government as a whole. This is essential to emphasize as it better highlights the role the Navy has to play in the United States government as a servant to direction from above.

1. Basic Unit of Analysis: Governmental Action as Choice

One of the keys to analyzing the actions of a government or a part of a government is to assume that the action represents a choice. In this case the Navy made a decision with the development of its FY2015 Long-Range plan in order to maximize its own internal strategic goals and objectives. These Navy goals and objectives have been developed to support overall U.S. national strategy.

2. Organizational Concepts

a. Unified Actor

The agent in this model is the United States Navy. The Navy acts as an individual with one mind, one perceived choice, and one estimate of consequences. For the purposes of this analysis the internal makeup of the Navy and the external influences still exist, but the Navy acts as one mind. It identifies its internal makeup and can assign priority but does so rationally with no political infighting or organizational influence. In short, the Navy acts as a cohesive unit.

b. The Problem

The Navy must provide Congress with a long-range shipbuilding plan while also working within provided national defense guidance and within the constraints of the budgetary environment. If the requirement was only to provide for a long-range plan then there would actually be no problem. Unfortunately the Navy must provide a feasible plan. It would be irrational to plan for 10 aircraft carriers to begin production next year when there exists only one shipyard capable of producing an aircraft carrier (ACIBC, 2014). Nor would a request for 10 aircraft carriers be feasible with the current fiscal environment. Therefore, the Navy must endeavor to meet its lawful requirements up against tight parameters.

c. Action as Rational Choice

(1) Objectives

The Navy must comply with the requirements of the 2012 *Defense Strategic Guidance* and the 2014 *Quadrennial Defense Review* as well as title 10 of the U.S.C. which determines the strategic and statutory basis for a requirement for a Navy that provides certain capabilities.

(2) Options

Variations in the long range plan constitute the available options. Because the long range plan does not allow the Navy to define its role in national defense, these variations could manifest themselves as a choice to produce more or less of a certain type of vessel so long as they meet the capabilities above. Ultimately, the Navy selects one course of action presented in the FY2015 Long Range Plan as the best option, though there may be other combinations of ships to meet the requirements.

(3) Consequences

Enacting a given choice has distinct consequences expressed in costs and benefits. Here, the Navy weighed the costs and benefits of different mixes of naval vessels and decided on the makeup presented in the FY2015 Long Range Plan. While deciding to produce more SSBN's, the Navy accepted the added financial cost for the fulfillment of requirements outlined by the QDR and DSG.

(4) Choice

The rational choice for the Navy is value-maximizing. This model assumes the Navy will select the alternative with the highest reward. The FY2015 Long Range Plan was selected because it makes the most of a difficult financial situation.

3. Dominant Inference Pattern

As Allison and Zelikow explain; "If a nation or its representatives performed a particular action, that action must have been selected as the value-maximizing means for achieving the actor's objectives" (Allison & Zelikow, 1999 p. 24). This idea is the

foundation of the RAM. It allows for evaluation of any decision in terms of benefits outweighting the costs of one option over any others.

4. General Propositions

The likelihood of a course of action derives from the Navy's: "(1) values and objectives, (2) perceived course of action, (3) estimates of consequences (which will follow each alternative), and (4) net valuation of each set of consequences. This yields two intuitively evident but powerful propositions:" (Allison & Zelikow, 1999)

- An increase in the perceived costs of an alternative reduces the likelihood of that action being chosen. In the case of the Navy this could exhibit itself in multiple ways. For example, it is possible that building a new class of ship with cutting edge technology would be cost prohibitive such as the DDG-1000 *Zumwalt* class destroyer.
- A decrease in the perceived costs of an alternative increases the likelihood of that action being chosen. In the Navy this could be evident when the cost of the DDG-51 continues to decrease, and the Navy decides to purchase more.

5. Evidence

Identify the available evidence provides insight into why the Navy's long-range shipbuilding plan was value-maximizing.

D. WHY THIS PLAN AND WHY NOW?

On July 1, 2014, Deputy Secretary of Defense, the Honorable Mr. Robert O. Work, submitted identical letters to the chairmen, chairwomen and ranking members of the various congressional defense committees. The page and a half memo succinctly outlined the purpose of the attached document, the FY2015 annual long-range plan for the construction of naval vessels. In one of the closing paragraphs, Mr. Work explains that he will "continue to work closely with the Navy regarding the sizing assumptions for our fleet." This manner of addressing the Navy as an individual gives credence to the idea of the Navy as a rational actor. In addition to identifying the Navy as an individual, the cover letter outlines the requirements that the Navy must meet when submitting its plan.

As all of the armed services do, the admirals and ranking civilians inside the Navy take their instructions from the president on the advice of the Secretary of Defense and the rest of the National Security Council. In the case of the Navy, the SECNAV also has a hand in shaping policy. The direction by which the current President, Barack Obama, chose to guide the DOD is evident in the 2012 strategic guidance; *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense* (Panetta, 2012). This high level guidance is only eight pages long and does not delve into the specific requirements of each individual service. In place of hard numbers, the 2012 *Defense Strategic Guidance* outlines the primary missions of the U.S. Armed Forces (Panetta, 2012).

- Counter Terrorism and Irregular Warfare
- Deter and Defeat Aggression
- Project Power Despite Anti-Access/Area Denial Challenges
- Counter Weapons of Mass Destruction
- Operate Effectively in Cyberspace and Space
- Maintain a Safe, Secure and Effective Nuclear Deterrent
- Defend the Homeland and Provide Support to Civil Authorities
- Provide a Stabilizing Presence
- Conduct Stability and Counterinsurgency Operations
- Conduct Humanitarian, Disaster Relief and Other Operations

Each one of these missions has a paragraph in the DSG explaining the basic concepts and expanding just what the President has in mind when he calls upon these missions to be conducted. As a rational actor it is assumed that the Navy strove to meet all or as many as possible of these requirements when developing its 2015 annual long-range shipbuilding plan because the Navy should be seeking to achieve its objectives.

The 2015 long-range shipbuilding plan also had the added benefit of being released shortly after the 2014 *Quadrennial Defense Review*. The QDR provides broad stroke ideas similar to the DSG but delves into more specifics for each individual service. Thus, the Navy was provided with more detailed guidance. The following are specifically mentioned in the QDR: (Department of Defense, 2014)

- Maintaining a submarine based leg for strategic deterrent (SSBN(X))
- Sustaining or enhancing offensive capability with:
    - Offensive Anti-Surface Warfare weapons
    - Next-Generation Land Attack Weapon
    - Virginia Payload Module
    - F-35 Joint Strike Fighter
- The Advent of Flight III DDG-51 destroyers
- Limiting the Littoral Combat ship to 32 vessels
- Recapitalizing the aging Amphibious fleet
- Making a decision on the future of the USS *George Washington*

In a similar fashion to the 2012 DSG, as a rational actor the Navy would attempt to fulfil as many, if not all of the requirements laid out in the 2014 QDR because these too define objectives or constraints the actor must work within or else suffer the consequences.

The DSG and the QDR are not without inputs from the Navy. In 2012, the Navy conducted a Force Structure Assessment (FSA) to evaluate how many ships it required to fulfil its mission sets. The previous assessment had occurred in 2005 and had settled at a target number of 313 ships. Yet due to several actions (including the DSG) the target number of vessels was reduced to 306. The Navy cited the following reasons: (OPNAV N8, 2013)

- Operational Plans were re-examined
- Shipbuilding programs were changed
- Ship employment cycles were modified
- Global posture forward was increased

It is also essential to emphasize that the method of counting ships has varied over time. The current long-range shipbuilding plan uses the counting method set forth in SECNAVINST 5030.8B issued in March of 2014 replacing the 5030.8A instruction from 2011. These rules were designed to better serve the Global Force Management Allocation Plan (GFMAP) and were received with some controversy (Secretary of the Navy, 2014) (Freedberg, 2014d). Oddly enough the adjustment to the counting rules did not change

the ultimate target goal of 306 ships, yet the makeup of that force has changed slightly. Table 1 depicts the targeted goals after the FSA using the older ship counting method while Figure 3 depicts the changes in battle force numbers over the life of the FY2015 Long Range Plan using both counting methods. These exhibits provide a look into what a unitary actor would focus upon; numbers provide a starting point and a concrete target. A change in counting methodology also brings the Navy that much closer to its target goal of 306 vessels.

Table 1. Naval Combatant Force Structure (from OPNAV N8, 2013)

Ship Type	**2010**	**2012**
CVN	11	11
Large Surface Combatant	94	88
Small Combatant	55	52
MCM	0	0
LCS	55	52
SSN	48	48
SSGN	4	0
SSBN	12	12
Amphibious Ships	33	33
LHA/LHD	11	11
LPD	11	11
LSD/LX(R)	11	11
Combat Logistics Forces	30	29
T-AO/AOE Oiler	19	17
T-AKE Supply Ship	11	12
JHSV	10	10
Command and Support	16	23
LCC Command Ship	2	2
AS Tender	2	2
ARS/AFT Salvage	8	8
T-AGOS Surveillance	4	5
T-AKE/MLP/AFSB	0	6
Total Battle Force Ships	313	306
Numbers utilize SECNAVINST 5030.8A Counting Rules		

Where two figures are shown, the first is the figure using existing rules for counting battle force ships, and the second is the figure using the Navy's proposed modified rules for counting battle force ships.

	CVN	LSC	SSC	SSN	SSGN	SSBN	AWS	CLF	Supt	Total
306 ship plan	**11**	**88**	**52**	**48**	**0**	**12**	**33**	**29**	**33**	**306**
FY15	10	85	19/26	54	4	14	30	29	29/32	**274/284**
FY16	11	88	23/30	53	4	14	31	29	27/30	**280/290**
FY17	11	90	27/34	50	4	14	32	29	29/32	**286/296**
FY18	11	91	31/38	52	4	14	33	29	29/32	**295/304**
FY19	11	93	35/40	51	4	14	33	29	31/34	**301/309**
FY20	11	95	36/37	49	4	14	33	29	33/36	**304/308**
FY21	11	96	36/33	49	4	14	33	29	32/35	**304**
FY22	11	97	38/36	48	4	14	33	29	32/35	**306/307**
FY23	12	98	39	49	4	14	33	29	33/36	**311/314**
FY24	12	98	41/40	48	4	14	34	29	33/36	**313/315**
FY25	11	98	43	47	4	14	34	29	34/37	**314/317**
FY26	11	97	46	45	2	14	36	29	34/37	**314/317**
FY27	11	99	49	44	1	13	35	29	34/37	**315/318**
FY28	11	100	52	41	0	13	36	29	34/37	**316/319**
FY29	11	98	52	41	0	12	35	29	34/37	**312/315**
FY30	11	95	52	41	0	11	35	29	34/37	**308/311**
FY31	11	91	52	43	0	11	34	29	34/36	**305/307**
FY32	11	89	52	43	0	10	34	29	35/37	**303/305**
FY33	11	88	52	45	0	10	35	29	35/37	**305/307**
FY34	11	86	52	46	0	10	34	29	35/37	**303/305**
FY35	11	87	52	48	0	10	32	29	35/37	**304/306**
FY36	11	88	52	49	0	10	32	29	35	**306**
FY37	11	90	52	51	0	10	33	29	34	**310**
FY38	11	91	52	50	0	10	33	29	35	**311**
FY39	11	92	52	51	0	10	33	29	34	**312**
FY40	10	90	52	51	0	10	32	29	34	**308**
FY41	10	89	52	51	0	11	33	29	34	**309**
FY42	10	87	52	52	0	12	32	29	34	**308**
FY43	10	84	52	52	0	12	31	29	34	**304**
FY44	10	83	52	52	0	12	31	29	34	**303**

Source: FY2015 30-year (FY2015-FY2044) shipbuilding plan.

Note: Figures for support ships include five JHSVs transferred from the Army to the Navy and operated by the Navy primarily for the performance of Army missions.

Key: FY = Fiscal Year; **CVN** = aircraft carriers; **LSC** = surface combatants (i.e., cruisers and destroyers); **SSC** = small surface combatants (i.e., frigates, Littoral Combat Ships [LCSs], and mine warfare ships); **SSN** = attack submarines; **SSGN** = cruise missile submarines; **SSBN** = ballistic missile submarines; **AWS** = amphibious warfare ships; **CLF** = combat logistics force (i.e., resupply) ships; **Supt** = support ships.

Figure 3. Projected Force Levels Resulting from FY2015 30-Year Shipbuilding Plan (from O'Rourke, 2014b)

E. THE RAM DECISION

Acting as a rational actor, the Navy should endeavor to follow the guidance of the DSG and the QDR and therefore the makeup of its fleet would be expected to change to address changing goals in 2012, 2013 and 2014. The rational actor states that "As long as the Navy is able to procure the ships reflected in the plan, we will have a battle force that meets QDR requirement, and that will adequately sustain the national shipbuilding and naval combat systems design industrial bases" (Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014). This quote provides evidence that the RAM holds. In this case the Navy has provided a document which can fulfill their governing requirements so long as the fiscal support is there. This is a value-maximizing decision. And if they propose a shipbuilding plan that meets Navy needs, but are not in accordance with the DSG or QDR, the Navy will suffer consequences from the Secretary of Defense or Congress for failing to comply with the guidance

Presented in Table 2 and Figure 4 is the Navy's long-range projected battle force inventory under the current ship counting instruction. The Navy first attains its 306 ship goal in FY19 and then maintains above that mark for most of the next 30 years, falling below only five times. The last two years of the projection are trending downward but beyond FY2044 the makeup and more importantly the requirements of the U.S. Navy will most likely have changed substantially. The FY2015 Long Range Plan does address some of the impending costs of the high production years but this topic will be discussed later. Beyond the write-up of the document itself, much of the explanation of the decision is accomplished through various charts, graphs and appendices. Each one of these exhibits provides more credibility to the rational actor approach. Options can be clearly explored with manipulation of the numbers and consequences can be evaluated.

Table 2. Navy's FY2015 Projected Battle Force Inventory

Fiscal Year	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Aircraft Carrier	10	11	11	11	11	11	11	11	12	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	10	10	10	10	10
Large Surface Combatant	85	88	90	91	93	95	96	97	98	98	98	97	99	100	98	95	91	89	88	86	87	88	90	91	92	90	89	87	84	83
Small Surface Combatant	26	30	34	38	40	37	33	36	39	40	43	46	49	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Attack Submarines	54	53	50	52	51	49	49	48	49	48	47	45	44	41	41	41	43	43	45	46	48	49	51	50	51	51	51	52	52	52
Cruise Missile Submarines	4	4	4	4	4	4	4	4	4	4	4	2	1																	
Ballistic Missile Submarines	14	14	14	14	14	14	14	14	14	14	14	14	13	13	12	11	11	10	10	10	10	10	10	10	10	10	11	12	12	12
Amphibious Warfare Ships	30	31	32	33	33	33	33	33	33	34	34	36	35	36	35	35	34	34	35	34	32	32	33	33	33	32	33	32	31	31
Combat Logistics Force	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Support Vessels	32	30	32	32	34	36	35	35	36	36	37	37	37	37	37	37	36	37	37	37	37	35	34	35	34	34	34	34	34	34
Total Naval Force Inventory	284	290	296	304	309	308	304	307	314	315	317	317	318	319	315	311	307	305	307	305	306	306	310	311	312	308	309	308	304	303

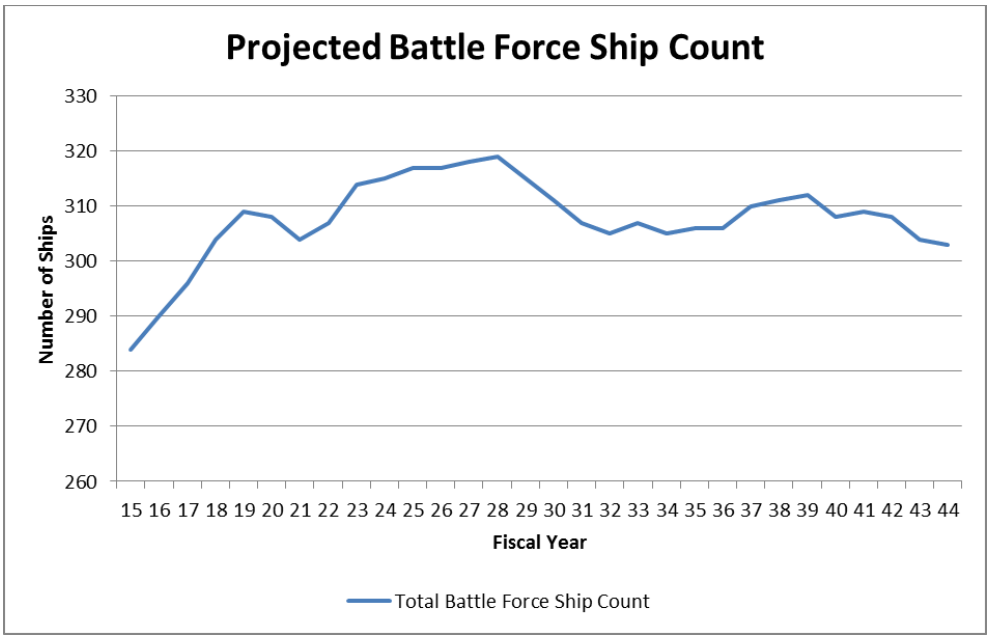


Figure 4. Total Battle Force Ship Numbers

While Figure 4 depicts the overall ship numbers, Figure 5 presents information extrapolated from the current long-range projected inventory numbers broken down by the type of vessel. By assessing how the fleet will look at a nuanced level, the consequences of one option can be better compared to the consequences of another. This figure also provides a view of where the Navy has determined it must hold the line. The number of combat logistics ships is projected to be flat for the entire 30 year plan. This evidence shows the value that the Navy places upon that class of vessel and that 29 ships is the most value maximizing choice likely because that is what is required to support the deployed fleet. Any additional ships would provide excess capacity and take away funding from other classes of ships. At the same time, the demise of the dedicated cruise missile submarine demonstrates that the Navy no longer values that asset. The niche capability provided by those submarines can be delivered elsewhere in the plan.

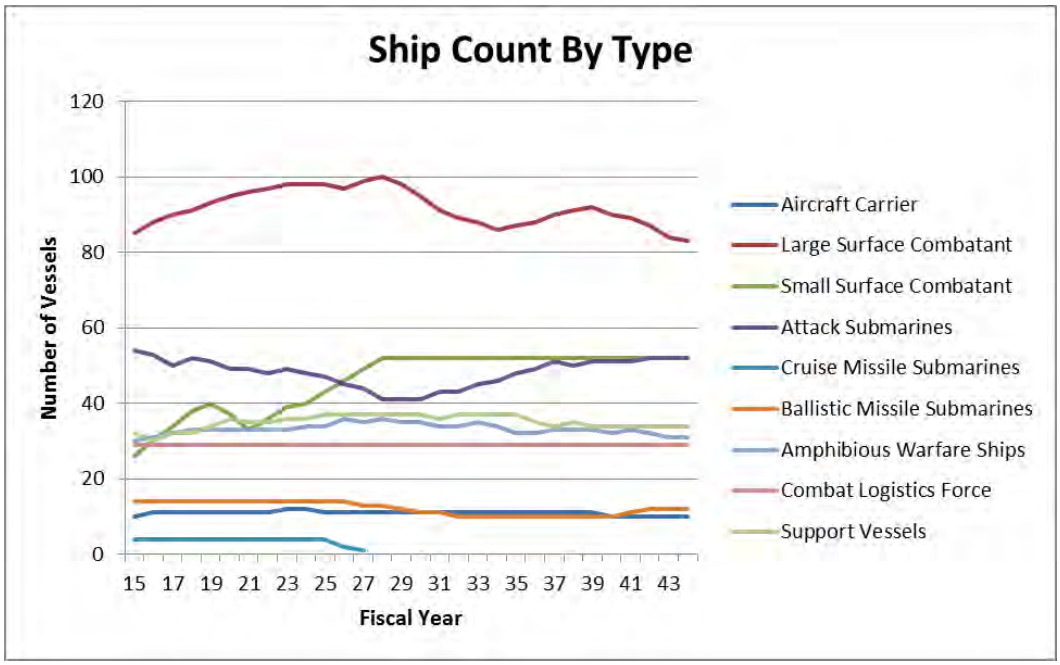


Figure 5. Projected Vessel Count by Ship Type

F. WERE THERE ALTERNATIVES: WHY DID THE NAVY SETTLE ON THESE SHIP NUMBERS IN THESE YEARS?

The Navy had many alternatives in selecting the future battle force makeup. On the extreme ends, the Navy could have chosen to cease building aircraft carriers and just concentrate more on smaller, less expensive ships. It is also possible that the Navy could have decided to divest itself of the third leg of the nuclear triad, ballistic missile submarines. Of course, these choices would not be in line with any of the governing documents and policies by which the Navy is supposed to operate. A choice on the extreme would likewise have extreme consequences. In the end, the numbers chosen were very specific and conformed to the primary idea of the Rational Actor: value maximization (Allison & Zelikow, 1999). These numbers address the Navy's need to confront a variety of missions involving sub, surface, amphibious, air, nuclear and humanitarian capabilities. Because these ships often deploy in groups, this mixture has historically been considered the most valuable.

I have already outlined several documents that played a major role in the substance of the Annual Long-Range Plan for Construction of Naval Vessels for FY2015.

The broadest document is the Defense Strategic Guidance which is refined by the 2014 Quadrennial Defense Review. The QDR's focus on specific numbers ensures that at least part of the Navy's eventual plan is pre-determined. In addition, there are laws on the books that guide the Navy's structure. In Title 10 of the U.S. Code, chapter 507, section 5062 mandates that "The naval combat forces of the Navy shall include not less than 11 operational aircraft carriers" (Long-range plan for construction of naval vessels, 2010). However, the retirement of the USS *Enterprise* before her replacement was ready caused the number to drop to 10 carriers. The Navy was able to obtain permission from Congress for the temporary drop (Cavasa, 2014). The carrier issue is therefore something that the Navy chose to address directly in the long-range plan. Currently, the ex-*Kitty Hawk* will be maintained in an "out-of-commission, in-reserve status" until FY2016 at which point the Navy will accept the USS *Gerald R. For*d (CVN 78) (Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014). Decisions such as these are another example of the RAM at work. The Navy was presented with a host of options and chose to address the situation in the plan they viewed as the most value maximizing way possible.

The most pressing issue the Navy had to contend with in developing the FY2015 Long Range Plan was the development of the *Ohio* replacement SSBN, ballistic missile submarine. The requirement of a suitable replacement is the first topic addressed in the 2014 QDR and "12 fleet ballistic missile submarines" are the first ships listed in the target of 306 vessels. The *Ohio* replacement is also the first cost issue directly addressed in the long-range construction plan. This cost issue highlights one of the flaws of the Navy's plan but also highlights what the Navy sees as its priorities. In this instance, the Navy understands the weakness of its plan and tactfully addresses Congress on its concerns. Subtly stated in the third section of the plan, the Navy summarizes what it sees as the ultimate goals it must achieve:

> This report outlines the Long-Range Naval Vessel Construction Plan necessary to build and maintain the battle force inventory outlined above and describes the resources necessary to implement this plan. ***As long as the Navy is able to procure the ships reflected in the plan we will have a battle force that meets QDR requirements and that will adequately sustain the national shipbuilding and naval combat systems design***

> ***industrial bases*** [emphasis added]. (Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014)

The mention of the industrial bases is a nod to an additional legal requirement found in Chapter 9, Section 231, Title 10 of USC. Obviously it is extremely important to protect a robust industrial base for continued support of the U.S. Navy, but the main issue is still that of the almighty dollar. The following section of the plan begins to outline, in billions of dollars, just what the proposed plan would cost. Overall the Navy foresees costs increases of $4B over its historic annual average of $13B for ship procurement. The Navy points out that even if the *Ohio* replacement requirement was removed, "the average funding requirement beginning in FY2020 is ~$14-$15B/yr to build the FSA force" (Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014). The Navy understands the cost situation with the procurement of the *Ohio* replacement and makes sure to justify its FY2015 Long Range Plan as supporting the 2012 FSA. Even if the Congress did not mandate that the Navy consider the industrial base, it is in the Navy's interests to do so. Sustaining shipyard capability is value maximizing as it would be far less costly than reconstructing a lost shipyard.

If money were not an issue, then the annual requirement to produce a plan would merely be a formality and would not be met with such scrutiny. The greatest challenge the Navy has to overcome when producing the long-range plan is clearly the budget. Therefore, the Navy submits a plan that meets all requirements (at least initially) but ultimately leaves success up to the purse strings controlled by Congress. A course of action such as this implies that the Navy is working according to the RAM. There is logic and reason behind a plan that may in fact be unachievable. The Navy viewed the options available and decided upon this route in order to maximize the return in a tight fiscal environment. But the arrival of these fiscal limitations did not appear to the Navy overnight.

Arguably, the Navy showed its current cards early in 2014 when it was still formulating the FY2014 budget. But this trend was not new. Even in 2012, during the formulation of the FY2013 Long-Range shipbuilding plan, the Navy expressed concern that it would be under serious funding stress (Deputy Chief of Naval Operations

(Integration of Capabilities and Resources) (N8), 2012). There were several statements from inside the Pentagon about a move to "trade away size for high-end capability" and most speculated this was centered on reducing the number of serving aircraft carriers (Cavas, 2014a). In April of 2014 the Navy announced it would pull the budget request for the overhaul and refueling of the USS *George Washington* to "better align with budget planning" (LaGrone, 2014b). This was due in part to the new fiscal environment the DOD found itself working in, but also as a check against the impending sequestration and the Budget Control Act. Ultimately, the Navy moved to put the refueling back into its budget request and punted the ultimate fate of the *George Washington* to its FY2016 budget request (Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014).

The decision to put an aircraft carrier on the chopping block was a conscious one by the Navy. Because the Navy knows it must build the new SSBN but cannot afford to construct everything else at the same time, the *George Washington* was offered up as a cost saving device. As a rational actor, the Navy chose the option that had the most value for the organization. Yet because an aircraft carrier is one of the most vaunted symbols of American power, this option gave Congress, the White House, and the American public a choice they could not stomach. This decision also begins to show a political side to the Navy's actions that will be addressed in the government politics chapter.

This budgetary decision highlights one of the major weaknesses in the Navy's long-range shipbuilding plan: funding the totality of the new SSBN. A complex issue that pits one class of ship against another for funding priorities again highlights the decision making process of a rational actor. There are certain requirements that need to be met and certain collections of ships that can meet those requirements. In this example, the Navy weighed the options and chose the option that put the *Ohio* replacement ahead of the *George Washington*, a move the Navy saw as value maximizing. Unfortunately for the Navy, this is not the only fiscal obstruction they will have to negotiate.

The Long-range plan correctly assesses that in the near term, the Navy will be able to meet all requirements that have been set forth. However, when the new submarine will be coming online, the costs will become far more than historic levels. Traditionally,

the financing of Navy shipbuilding efforts has averaged $13B a year in FY2014 constant dollars. In FY2020, due to the new SSBN, the funding would need to be increased to an average $17.2B per year until FY44 to execute the plan the Navy has outlined (Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014). During the peak SSBN procurement years (FY25-FY43) the average cost would be $19.7B. A breakdown in new vessel's arrival by fiscal year is presented in Table 3 while funding requirements by type of vessel is presented in Figure 6. These figures again highlight the process of weighing options, determining consequences and choosing the value maximizing action. Even though the costs of the new SSBN are rather large compared to the other procurement programs, the Navy sees the *Ohio* replacement as a requirement of the highest priority. Therefore, as a rational actor, the Navy is willing to sacrifice the procurement of other vessels to ensure the replacement SSBN's success.

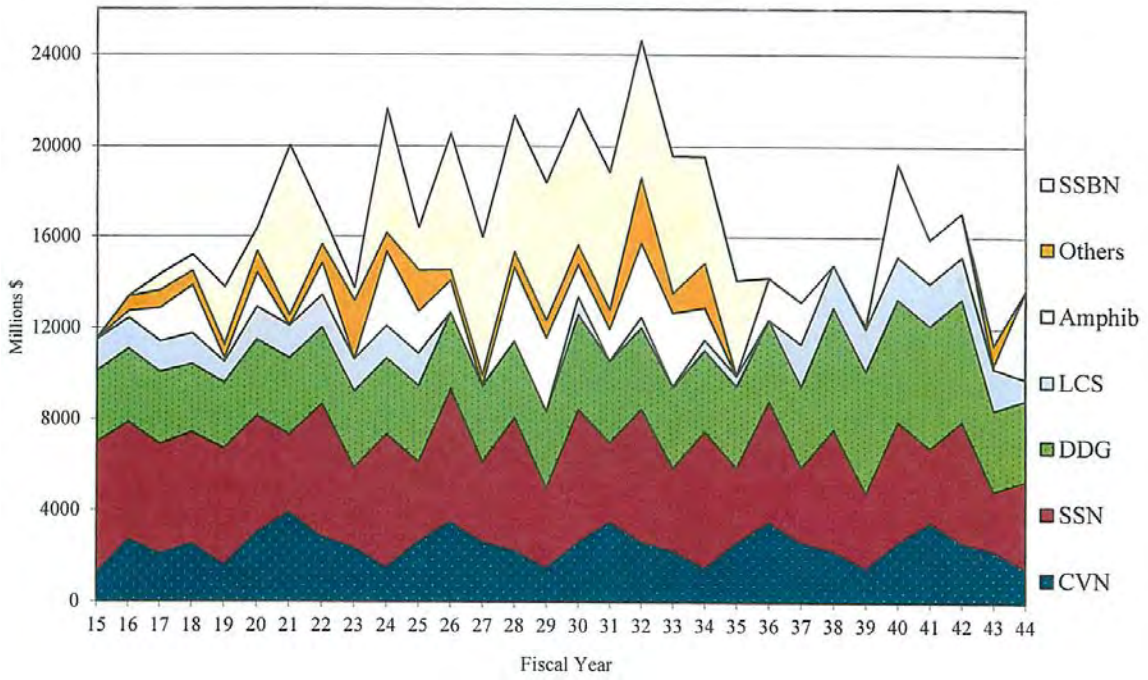


Figure 6. Annual Funding Requirement for Navy Long-Range Shipbuilding Plan (FY2015-2044, FY2014)

Table 3. Long-Range Naval Battle Force Construction Plan

Fiscal Year	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Aircraft Carrier				1					1					1					1					1					1	
Large Surface Combatant	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	2	2
Small Surface Combatant	3	3	3	3	2	3	3	3	3	3	3					1		1		1	1		4	4	4	4	4	4	4	2
Attack Submarines	2	2	2	2	2	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Ballistic Missile Submarines							1			1		1	1	1	1	1	1	1	1	1	1									
Amphibious Warfare Ships			1			1		1		2		1		2	1	1	1	2	1	1		1				2		1		2
Combat Logistics Force		1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										1	
Support Vessels			3	1	1	2		2	3	2	1			1	1	2	2	3	2	2										
Total New Construction	7	8	11	10	8	11	8	11	11	13	8	7	5	10	7	10	8	12	9	9	5	5	7	10	8	11	8	10	9	8

The Navy continues to addresses the impending future budget risk but with very little substance. The Navy simply states that it is "…committed to sustaining the appropriate readiness in today's Navy while building a future fleet to meet the continuum of threats we will face through the bulk of this century and will do so to the extent our resources will permit" (Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014). As a rational decision it may be a calculated risk in order to avoid any hard commitments and leave room to maneuver when the time comes.

The Navy also mentions that, should the Budget Control Act (BCA) caps take effect in FY2016, the service will be unable to meet requirements set forth in the Future Years Defense Plans and that it will be necessary to revise these plans. There is limited guidance other than a needed "revision" and some analysts believe the Navy should never have planned to the pre-BCA levels (LaGrone, 2014c). While conservative planning would have probably given the Navy a more realistic view of the actual money it was going to have available, the service would have been unable to meet its stated goals with that funding. In the end, regardless of the impending budget crisis, the Navy concludes, "The strategic and operation risk to national security associated with the presented force structure of naval vessels is acceptable" (Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014). The Constitution gives the Congress the power to "provide and maintain a Navy" and the 30 year plan is only the Navy's recommendation to Congress on how they will support their requirements, not a fully developed work plan. As such, the Navy may be rational in recommending more ships than it thinks it will be able to afford today because Congress always has the option to provide more money tomorrow. They might know from experience that the only way to get the additional funds is if they ask for them or show a level of fiscal stress in the plan.

Though outside limits such as the BCA and the current fiscal environment are clearly affecting the FY2015 Long-range plan, the Navy is not without blame. In the mid-2000s, the Navy continued to let the pace of ship acquisition be outpaced by ship retirement (O'Hanlon, 2009). It was not until 2009 when the Navy finally corrected a problem that had been occurring since the late '80s.

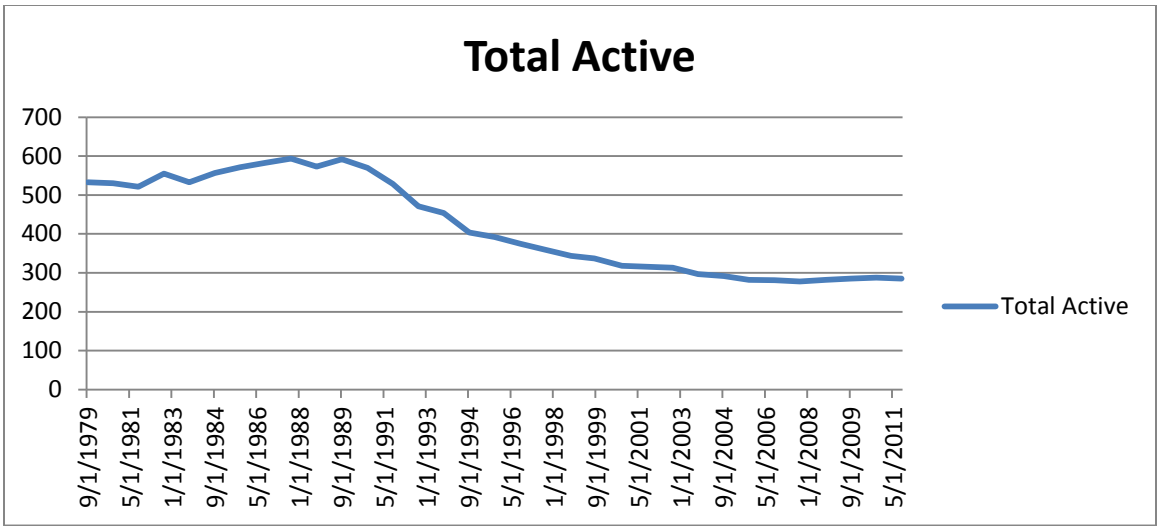


Figure 7. Battle Force Ship Count from 1979–2012

Though not as massive a problem as the fiscal environment, the constraints placed on the troubled LCS program have also given the Navy some planning difficulties. When the FY2013 Long-Rang shipbuilding plan was released in May of 2012, the LCS was designed to make up 55 of an "about 300" ship Navy (Deputy Chief of Naval Operations (Integration of Capabilities and Resources) (N8), 2012). It is important to emphasize that the DSG had already been published and the FY2013 plan was in compliance with those requirements. The following year, the FY2014 guidance had reduced that planned number of LCS to 52 ships but now focused on the target number of a 306 ship Navy from the 2012 Navy FSA (Deputy Chief of Naval Operations (Integration of Capabilities and Resources)(N8), 2013). The loss of three LCS ships is never sufficiently addressed partly because the "around 300 ships" mentioned in the FY2013 plan actually addresses requirements for 310–16 ships. In situations like this, where a lack of explanation seems odd, the RAM falters in its ability to fully explain what the Navy is doing.

Because the long range plan must be rehashed annually, there is some expected change to occur in the ships to be produced. With the change of counting rules, the makeup of the future fleet is even more pronounced. The change in battle force ship count between FY14 and FY15 plans can be seen in Table 4.

Table 4. Change in Total Battle Force Inventory from FY14-FY15 Long Range Plans

Fiscal Year	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Aircraft Carrier	xx	0	0	0	0	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Large Surface Combatant	xx	7	6	7	7	7	8	8	10	11	9	10	8	8	10	10	9	9	8	7	6	5	4	4	3	2	0	-1	-1	-4
Small Surface Combatant	xx	3	3	5	5	2	0	-4	-3	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Attack Submarines	xx	-1	0	0	0	-1	0	0	0	1	0	0	-1	-1	-2	-1	-2	-1	-2	-1	-1	0	-1	0	0	1	1	2	1	1
Cruise Missile Submarines	xx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ballistic Missile Submarines	xx	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amphibious Warfare Ships	xx	2	2	2	2	2	2	2	2	2	2	0	3	2	3	2	3	2	2	2	0	-1	-1	-1	0	0	0	0	0	0
Combat Logistics Force	xx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Support Vessels	xx	3	-1	-1	-1	-1	3	2	2	2	2	3	4	4	4	4	4	3	3	3	3	3	1	1	1	1	1	1	1	1
Total Naval Force Inventory	xx	14	10	13	13	9	13	8	10	17	13	14	15	14	17	16	14	13	11	11	8	7	3	4	4	4	2	2	1	-2

The change from the FY2014 plan to the FY2015 plan is rather interesting. At this point, the requirement in the QDR has been laid out and the Navy is now limited to only 32 littoral combat ships: a loss of 20 potential ships. Yet the information presented in Table 4 shows no such negative impact; rather, there is a marked increase in fleet size. This can all be attributed to the new ship counting rules found in SECNAVINST 5030.8B.

A reading of SECNAV 5030.8B with an understanding of the Annual Long-Range shipbuilding plans immediately brings up areas of disagreement. The nine separate categories of ships listed in the FY2015 Long-Range Annual shipbuilding plan are not the same as the categories listed in the SECNAVINST and therefor some interpolation is required to balance what the Navy plans to build and what the Navy will count. The Naval Vessel Register (NVR) holds the current ship count and has similar categories towards its governing instruction, 5030.8B. The current count from the NVR is seen in Figure 8 while the variations in categories can be seen in Table 5.

Fleet Size

Classification of Naval Vessels are in accordance with SECNAV Instruction 5030.8B

Note: Fleet size was last updated on 09/29/2014
If real time count is required contact CNO staff.

	Ship Battle Forces	Active In Commission
Totals	290	243
Aircraft Carriers	10	10
Surface Combatants	94	94
Submarines	73	72
Amphibious Warfare Ships	31	30
Mine Warfare Ships	8	13
Combat Logistics Ships	31	0
Fleet Support	26	5
Auxiliary Support	3	0
Combatant Craft	10	13
Naval Reserve Force Active (NRFA) Ships	4	4
Other	0	2

Figure 8. Screen Capture of the Current Battle Force Inventory (from Naval Sea Systems Command, 2014)

Table 5. Comparison of Categories between FY2015 Long Range Plan and the Naval Vessel Register

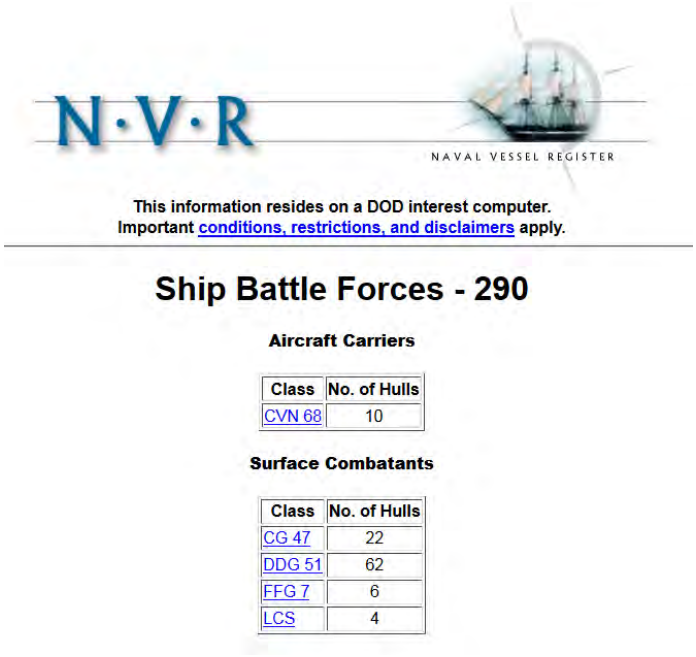
FY2015 Long Range Plan Catagories	Naval Vessel Register Catagories
Aircraft Carrier	Aircraft Carriers
Large Surface Combatant	Surface Combatants
Small Surface Combatant	Submarines
Attack Submarines	Amphibious Warfare Ships
Ballistic Missile Submarines	Mine Warfare Ships
Amphibious Warfare Ships	Combat Logistics Ships
Combat Logistics Force	Fleet Support
Support Vessels	Auxiliary Support
	Combatant Craft
	Naval Reserve Force Active Ships
	Other

While some of the categories clearly align (e.g. Aircraft Carriers), there is no specific breakdown of Large Surface Combatant and Small Surface Combatant in the NVR. The only breakdown the NVR provides can be seen partially in Figure 9. Upon delving into the Long-Range plans, the only Small Surface Combatants mentioned directly are the Littoral Combat Ship and the Oliver Hazard Perry class guided missile frigate (FFG). The FY2015 plan also contains the following:

> Of note, the revised Counting rules reflect the addition of ships employed today to meet small surface combatant (SSC) requirements for which the Navy currently has insufficient SSC forces. While the bulk of the vessels we have added are forward deployed today, most will retire or will no longer be forward deployed by 2020 and therefore will have almost no impact on the enduring FSA ship count. (Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014)

This is extremely interesting in that the Navy has added the Costal Patrol Ships (PC) and its Mine Countermeasure Ships (MCM) to the SSC ship count for FY2014 and beyond. While the Navy admits it is exploring additional options for the SSC requirement, the QDR in no way implied that the Navy's warfighting requirements were less with the reduction of the number of LCS's. To look at this in another way, in

FY2014, the Navy needed 306 ships to do its mission. This number includes 52 LCS but not the PC's and MCM's that were already deployed and doing their job. In FY2015 the Navy still needs 306, but now this number includes the reduced number LCS and now counts the PC's and MCM's. If the SECNAVINST had existed in time for the FY2014 plan, the Navy would have been planning for nearly 70 SSC's when it stated that it only needed 52. So why would the Navy do this?


N·V·R
NAVAL VESSEL REGISTER
This information resides on a DOD interest computer.
Important conditions, restrictions, and disclaimers apply.
Ship Battle Forces - 290
Aircraft Carriers

Class	No. of Hulls
CVN 68	10

Surface Combatants

Class	No. of Hulls
CG 47	22
DDG 51	62
FFG 7	6
LCS	4

Figure 9. NVR Breakdown of Surface Combatants as of 29 September 2014 (from Naval Sea Systems Command, 2014)

A possible explanation lies in the follow-on small surface combatant (SSC) the Navy is currently researching (Cavas, 2014b). The FY2015 Long Range Plan admits that the PC craft being counted in the SSC category is only a temporary measure and should have "almost no impact on the enduring FSA ship count" by 2020 (Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014). It is possible that the Navy sees this as enough time to research and produce the LCS replacement.

Fitting with the paradigm of the rational actor, the Navy would choose a path of changing ship counts only if it thought it was value maximizing (Allison & Zelikow,

1999). It is possible that realizing the immense fiscal wall they were forced up against, they chose this route to look more in control of their situation. There was some condemnation on the change in metrics, but that seems to have died off after a month. If the Navy announced that it was facing an even larger budget shortfall due to imposed requirements stemming from the failure (perceived or not) of one of its current shipbuilding projects, it is possible that the potential backlash would have been greater and therefore less desirable. Again, the Navy chose a value-maximizing decision. However, this example may also serve to highlight the limitations of a strictly RAM approach. Perhaps there are other explanations for these discrepancies beyond the boundary of a rational actor which will be discussed in later chapters.

There are two more elements to the FY2015 Long Range Plan that are worth investigating from a RAM standpoint: the future of the guided missile cruisers and amphibious vessel construction. As the oldest and largest of the large surface combatants the Navy identified a potential cost saving measure by moving 11 cruisers out of service into a period of prolonged modernization (Majumdar, 2014). These vessels would return one at a time as in-service cruisers were decommissioned thus limiting the shortfall in large surface combatants during the 2030's (Deputy Chief of Naval Operations (Integration of Capabilities and Resources)(N8), 2013). Though this move was ultimately rejected by Congress, the decision process was sound and a good representation of the RAM at work. The Navy viewed this option as value maximizing because it kept the ships available in case they were truly needed but reduced overall operating costs.

Similarly, the construction of amphibious vessels also faces a fiscal challenge. The Senate directed the Navy to include an appendix outlining the future of such vessels when they submitted their FY2015 Budget. A similar appendix is provided in the FY2015 Long Range plan and outlines a rational approach taken to the amphibious shortfall. As the agreed number of amphibious vessels for support of a 2.0 Marine Expeditionary Brigade lift is 38, but the Navy currently operates only 31 of these vessels. The shortfall must be explained somehow. The Navy again cites fiscal constraints as the reason they will not reach 38 vessels but instead plans on reaching and maintaining 33 amphibious

vessels. The Navy clearly states that with 33 vessels they maintain a level of "acceptable risk" (Deputy Chief of Naval Operations (Integration of Capabilities and Resources)(N8), 2013). To better bolster their choice there is discussion of utilizing mobile landing platforms, afloat staging bases, and joint high speed vessels to move the Marines should the requirement arise. All of this is an example of weighing options, the valuation of consequences and the value maximizing choice being selected.

G. SUMMARY OF THE RATIONAL ACTOR MODEL

Ultimately, the rational actor model proves useful in analyzing the 30 year shipbuilding plan. As a "big picture" approach, the RAM is often the best place to begin when first analyzing a decision. In the case of the FY2015 Long Range Plan, the RAM outline works well with the Navy. The Navy can easily represent a unified actor addressing a problem with the ultimate outcome being a decision on that problem. In this case, the problem was the production of the annual 30-year shipbuilding plan while being aware of current constraints and requirements. The Navy set about in a logical process identifying its objectives, various options as well as potential consequences. Throughout the development of the plan the service remained true to the dominant inference pattern and made its decisions by selecting the value maximizing action.

For the FY2015 Long Range Plan, the Navy outlined the fact that it could not get everything it wanted and was therefore willing to sacrifice some procurement to achieve what it saw as the most important. Other predetermined constraints that were imposed (e.g., the QDR's reduction in the total number of LCS's authorized) tied the Navy's hands and removed some choice. For priorities, the *Ohio* replacement took top billing over even the future of aircraft carriers in the current plan. Consequences were outlined with the discussion of the fiscal environment. Tradeoffs were conducted when proposing the cruiser layup to mitigate cost and drops in ship numbers. Additionally, though the Navy would like to see 38 amphibious vessels, it has chosen to operate with a target number of 33 vessels; the money is needed elsewhere for shipboard procurement. The ultimate choice was one of value maximization for the Navy.

Yet the RAM lens can also present a simplified view of a problem and can leave some areas uncovered. The change in ship counting rules to reach the 306 target and the refueling of the *George Washington* underscored areas where the RAM may fall short in its explanation of a decision. The Navy is not a monolithic organization and there are many outside stakeholders who want a say on how many ships to build and what the future makeup of the fleet should look like. Government politics also come into play with bargaining going back and forth between many different parties. Understanding these other views through an organizational behavior or government politics model can fill in some gaps and better increase the understanding of the Annual Long-Range Plan for Construction of Naval Vessels for FY2015.

THIS PAGE INTENTIONALLY LEFT BLANK

V. APPLICATION OF THE ORGANIZATIONAL BEHAVIOR MODEL

The shift toward the organizational behavior (OB) decision model requires that we redefine the lens through which we have been examining the Annual Long-Range Plan for Construction of Naval Vessels for FY2015. While the Navy is often viewed a single organization when acting on the international stage, this approach will break the Navy into smaller internal organizations as well as highlight the influences of external organizations on decision making. The following is provided as an outline derived from *Essence of Decision* (Allison & Zelikow, 1999).

A. EXPLANATION OF THE ORGANIZATIONAL BEHAVIOR MODEL

While the rational actor model works well in its simplicity to explain the actions of a government or other actor, it is obvious to an outside observer that a government is far from a single actor and is composed of many individual parts or organizations. When making decisions on a governmental level, few if any decisions fall exclusively to the domain of one organization (Allison & Zelikow, 1999). Because of this, government decisions can be viewed as the collective workings of several organizations. Even when the President may want to present a decision as his alone, he is influenced by the information and capabilities provided to him by individual organizations. Therefore, to discount the impact organizations can have on government decisions can result in a lack of understanding of what was really happening.

Another tenet of governmental decisions and organizational interaction has to do with the complexity of the decision: the more complex, the more organizations involved (Allison & Zelikow, 1999). These complex decisions are also undertaken within certain rules of organizational coordination and internal organization operations. Inside the government of the United States, agencies such as the DOD and Department of State have rehearsed routines for interaction. Inside individual units of the DOD, functioning rules are often codified into a set of standard operating procedures. These routines are essential in the day-to-day operation of an organization and often determine how they

will respond when stressed. Over time their actions can come to define the purpose of an organization. Allison and Zelikow argue that organizational behavior is "explained in terms of organizational purposes and practices common to the members of the organization, not those peculiar to one or another individual" (Allison & Zelikow, 1999 p. 144).

B. OUTLINE FOR ORGANIZATIONAL BEHAVIOR MODEL

To properly apply the organizational behavioral model characteristics to different actors in and around the Navy it is necessary to define certain characteristics of an organizational output. Similar to the structure of the rational actor chapter, the outline below has been molded from *Essence of Decision* and applied to the Navy (Allison & Zelikow, 1999).

1. Basic Unit of Analysis: Navy Action as Organizational Output

The OB Model views the Annual Long-Range Plan for Construction of Naval Vessels for FY2015 as the product of an organization process "in three critical senses" (Allison & Zelikow, 1999). First, the current plan was produced by an organization as a process of organizational output. In this case, the document came from the N8 office in the Pentagon—Deputy Chief of Naval Operations for Integration of Capability and Resources. Second, the existing organizations define the range of choice options. For example, the available shipyards and their capabilities define the maximum number of ships the Navy can produce. An organization such the Marines has firm ideas about the number of amphibious ships the Navy needs. And third, "organizational outputs structure the situation within the narrow constraints of which leaders must make their decisions" (Allison & Zelikow, 1999, p. 164). For example, the Congress defines the requirements of the Navy therein ensuring a narrow possible outcome. "…the formal choice of leaders is frequently anticlimactic" (Allison & Zelikow, 1999 p.165).

In finalizing the decision that was the Annual Long-Range Plan for Construction of Naval Vessels for FY2015 it is important to realize that all information provided to the

decision makers, including capabilities, requirements, and options came from intra-organizational outputs.

2. Organizing Concepts

a. Organizational Actors

The actors at play inside the Navy include its major communities: Surface, Aviation, and Submarine (Wilson, 2000). In addition, the Navy could also be organized from a planner, builder, and end-user standpoint. The planner would be the Deputy Chief of Naval Operations for Integration of Capability and Resources (N8) and the office of the Chief of Naval Operations, Surface Warfare Division (ONPAV N96), the builder would be NAVSEA, and the end-user would be Commander Fleet Forces Command (CFFC). Outside of the Navy, major players include the United States Marine Corps and the shipbuilding industry.

b. Factored Problems and Fractionated Power

Each previously identified organization has its own power base and set of requirements and capabilities. For example, Naval Aviation is headed by a flag officer who is referred to as the Air Boss. Only naval aviators are selected to command aircraft carriers whose numbers are mandated by federal laws. Naval Aviation and its mission are also supported by affiliated organizations representing the various aircraft communities in the Navy, such as the Tailhook Association and the Naval Helicopter Association. However, aircraft carriers are built by NAVSEA, a command dominated by the surface warfare community. The aviation community is responsible for the ship's missions and operations while the surface community is responsible for their construction.

c. Organizational Missions

Inside the Navy, each community or office has its own mission and goals. While often derived from the governing documents discussed in the Rational Actor chapter, each organization defines how they support the mission differently. Outside of the Navy, each organization has its charter or purpose that guide how it operates. It is also important

to emphasize that "Organizations interpret mandates into their own terms" (Allison & Zelikow, 1999).

d. Operational Objectives, Special Capacities, and Culture

Because of the nature organizations and the way they often operate, the objectives, special capacities, and culture exhibit relatively stable conditions over time. For example, Naval Aviation has been a proponent of the power of the aircraft carrier since before World War II. In a similar fashion, the Marines pride themselves on their amphibious prowess and mark that as a key component that makes them unique from the U.S. Army.

e. Action resulting in Organizational Output

The concept of action that results in organizational output is the key to understanding the OB model. Allison and Zelikow argue that an organization's action is "programed character" (Allison & Zelikow, 1999, p. 168). The way an organization behaves and contends with a problem is governed by a set of pre-established routines. The output produced by the activity of an organization is characterized by the following:

(1) Objectives: Compliance Defining Acceptable Performance

Inside the DOD the services strive to avoid, "(1) a decrease in dollars budgeted, (2) a decrease in manpower, (3) a decrease in the number of key specialists, (4) reduction in the percentage of the military budget allocated to that service, (5) encroachment of other services on that service's roles and missions, and (6) inferiority to an enemy weapon of any class." These standards translate well to the individual communities inside the Navy (Allison & Zelikow, 1999 p. 169).

(2) Standard Operating Procedures (SOP), Programs and Repertoires

SOP's are defined plans by which certain organizations take action or which guide an action. The more grounded in the overall structure of an organization, the more resistant they are to change. Each organization has developed ways of operating over time that do not necessarily welcome or adapt well to change.

Similar to SOP's, programs and repertoires are evident in the routines by which an organization conducts extremely complex actions. For example, passing a bill in Congress has a defined routine which involves the interaction and coordination of thousands of individuals. Similarly, naval aviation has supported combatant commander requirements with 11 aircraft carriers for some time and will fight to maintain that number.

(3) Uncertainty Avoidance

When possible, organizations will avoid uncertainty. The more risky an action appears to an organization, the more likely they will avoid such a path. For example, individual organizations would not likely give power over their budgetary matters to another organization if they could avoid it.

(4) Problem-directed Search

If a situation is not covered by an organizations SOP's or is foreign to their programs repertoires, the organization will search for alternatives and options. This is especially relevant in the tight fiscal environment the Navy finds itself in today. Each organization that is a major player in the long range plan has moved to develop new tactics to counter potential problems such as budgetary constraints. Often this has led to the development of external organizations such as the respective shipbuilding coalitions.

(5) Organizational Learning and Change

Organizations persist in status quo due to routines and culture. While they are generally capable of adapting to minor change or non-standard routines, certain conditions often prompt dramatic change. These conditions could include but are not limited to: (Allison & Zelikow, 1999)

- Budgetary Feast
- Prolonged Budgetary Famine
- Dramatic Performance Failures

For the purposes of the FY2015 Long Range Plan, the idea of a budgetary feast is now far-fetched with the end of major combat operations in Iraq and Afghanistan, but the idea of an impending budgetary famine is very real. In addition, the perceived failure of

the LCS and the rising cost of the DDG-1000 *Zumwalt* class have caused many in the surface warfare community to question their acquisition priorities.

(6) Decisions of Government Leaders

Organizations have an inherent momentum but are still subject to imposed changes upon the orders of senior government leaders. As much as the USMC may want to see 10 new amphibious vessels commissioned, that will not happen unless senior government officials make it an absolute priority.

3. Dominant Inference Pattern

To understand what an organization will do when presented with a problem, it is best to look at what they have done in the most recent past. According to *Essence of Decision;* "The best explanation of an organization's behavior at *t* is *t*-1; the best prediction of what will happen at *t*+1 is *t*" (Allison & Zelikow, 1999). Back to the Marines, though they may want to see more amphibious vessels in their future, they have survived for quite some time with lower numbers and therefore will most likely continue at the same numbers.

4. General Propositions

a. Existing Organized Capabilities Influence Government Choice

In this instance, because the Navy possesses certain capabilities, it is more likely that decision makers will choose to preserve those capabilities. If the entire process of producing the FY2015 Long Range Plan is a result of organizational output, the move to preserve existing capabilities shows in the result. Again the Marines serve as an example. The amphibious capability is not viewed as the priority currently, but the capability is a requirement that will not be done away with.

b. Organizational Priorities Shape Organization Implementation

In the instance in which an organization has conflicting orders, or objectives, they will internally prioritize and understand the tradeoff of their actions. If the surface community realizes that they cannot have as many DDG-1000 vessels as they originally

planned, they will move to something they can accept – e.g., the production of more DDG-51's.

c. Leaders Neglect Calculations of Administrative Feasibility at their Peril

When organizations are forced to operate outside their established routines, they are often less effective and can fail to accurately predict outcomes. Across the communities there are examples of failures and cost overruns when an organization has pushed the technology barrier with a new ship class or failed to account for long term maintenance costs of a new platform. The LCS, DDG-1000, SSN-21, LPD-17 and CVN-78 all serve as examples. Leadership neglected the perceived costs and as a result the programs were truncated or cut outright.

d. Limited Flexibility and Incremental Change

Typical change in an organization is accomplished only incrementally. This is often a result of the following: (Allison & Zelikow, 1999)

- Organizational Budgets change incrementally
- Organizational culture priorities and perceptions are relatively stable
- Organizational Procedures and repertoires change incrementally
- New activities typically consist of marginal adaptations of existing programs and activities
- A program once undertaken is not dropped at the point where objective costs outweigh benefits

In the case of Navy shipbuilding, once a program has begun there is often only incremental change. Major change tends to occurs around the dawn of a new ship class normally from the identification of a new requirement.

e. Long Range Planning

Due to the inherent stability of the cultural aspects of organizations and the limited incremental change tendency, long range planning is often given only cursory attention. If it is a requirement, it could be performed and subsequently disregarded. Evidence of this exists in the FY2015 Long Range Plan. The majority of the document is

focused on the first 20 years of the plan with the final 10 years of the plan receiving only two paragraphs worth of discussion.

f. Imperialism

Organizations seek to grow and thrive in areas of budget, personnel, and autonomy. This concept is fairly obvious in more robust fiscal times but can be more subtle in an austere environment. Because the desire to expand organizational influence does not recede with funding, organizations may choose to fight for control of existing programs rather than develop new ones if budgets are tight.

g. Directed Change

It is possible for a directed change to have an impact on an organization. However, because many leaders that could affect such a change are elected into that position, organizations can often wait out an official. Therefore, this type of change does occur but is not that common. A recent example successful example of directed change for the surface community is the QDR imposed limit on the number of LCS vessels the Navy can construct. As long as that directive holds, the Navy will abide by it.

5. Evidence

While often more difficult to grasp, the OB model can provide a complementary view on the evidence at hand. By examining the organizations actually involved in the development process for a decision, individual organizational traits and priorities become evident. This OB model analysis can provide insights beyond those identified by the RAM in understanding the decisions made in developing the Annual Long-Range Plan for Construction of Naval Vessels for FY2015

C. BIG PICTURE VIEW OF THE NAVY AS AN ORGANIZATION

Most often when the Navy itself is being discussed, it embodies the ideas discussed in the outline above and can be viewed as an organization. In the case of *Essence of Decision*, the Navy was viewed as an organization. Therefore, it is helpful to first take this view before breaking the Navy into smaller organizations and looking at the

outside organizational influences. While this has similarities to the rational actor approach, the lens of analysis is changed to the OB outline previously discussed.

Because organizations are creatures of habit and routine, it is not surprising that there is often high similarity in the annual long-range shipbuilding plans of different years. For example, looking at the FY13 and FY14 plans (which share 29 planning years), most of the years varied in ship numbers by one ship or less. Only two years of the 29 showed a change of more than three ships between the two plans. This is evidence of incremental change as well as the limited alteration to the long-range planning in organizations and works to support the "Dominant Inference Pattern." The Navy kept with its strategy and had very incremental change for those years. However, we know that from FY14–FY15 there was a far more dramatic swing in the number of ships the Navy was projecting. While this seemly rebuffs the idea of incremental change, another aspect of the OB model can provide insight and explanation into this shift in projected ship numbers.

Looking back at Table 4, the changes between the FY14 and FY15 plans, it is apparent that only four of the shared 29 years had projected battle force ship counts within three ships or less. Over half of the years showed a change of ten or greater ships. While much of this can be traced to the updated ship counting method, there is a deeper origin. The cause of this is an outcome of the organizational dynamic, "budgetary famine." While the Navy has seen the bow wave of requirements vs. funding coming for some time, it was not until it became imminent that they were willing to directly address it in the FY2015 Long Range Plan. As seen in Table 5, the budget for shipbuilding has been generally increasing since the late '90s. After reaching a peak in FY11 leadership both in the White House and Congress have indicated a need to rein in the DOD budget. For the Navy, this represents a dynamic shift and a budgetary famine. The only bright side for the Navy is that the DOD budget tends to be cyclical and it is only a matter of time before it trends upwards.

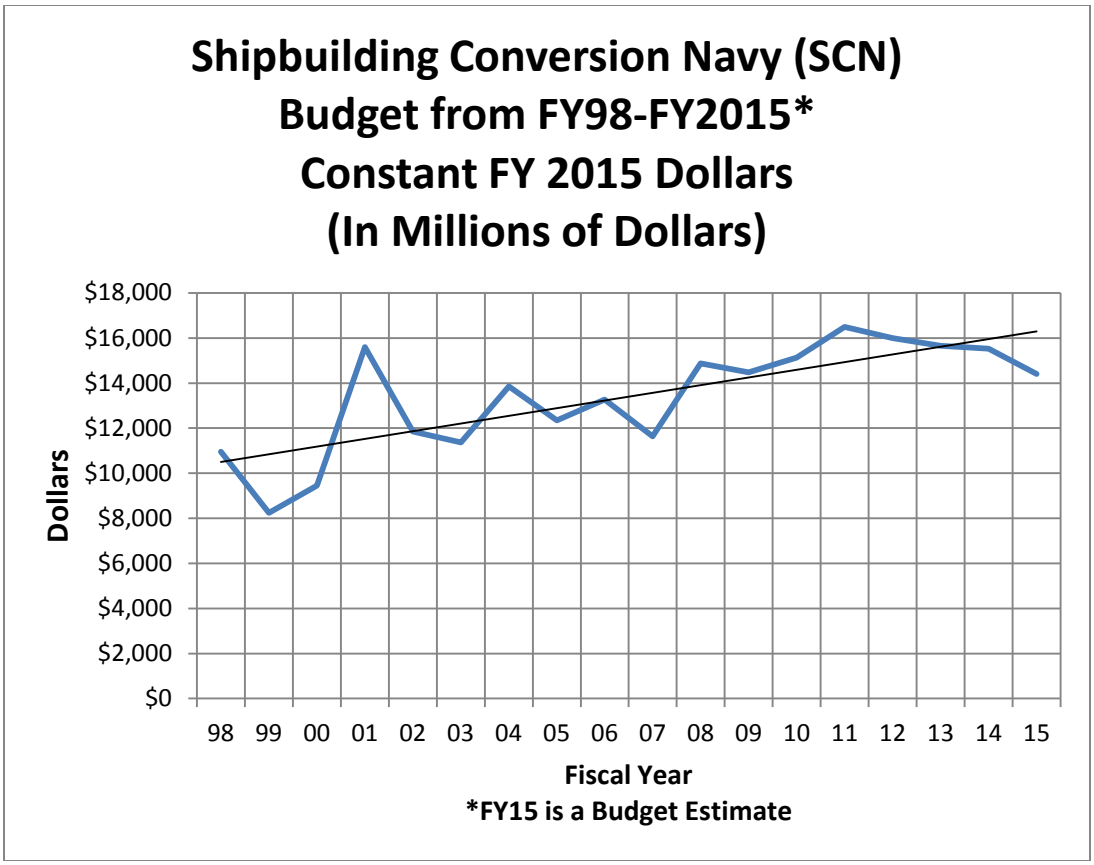


Table 6. SCN Budget Trend from FY98 to FY15 (from Department of the Navy, 2014)

Historically, the Navy has taken a rosy view of costs and funding when submitting its 30 year shipbuilding plan. The organizational characteristics that resist change have kept the Navy thinking that the budgetary feast of the past decade would continue. Yet as the budgets continued to shrink, the cost of the SSBN replacement kept creeping up and the Navy was forced to remove planning for a future flight of its *Arleigh Burke* class destroyers, it became clearer to the Navy as a whole that the shipbuilding plan was "unsustainable" (Freedberg, 2014c; LaGrone, 2014a). This also serves as an example of leaders neglecting administrative calculations at their own peril. Budgets for the military have always drawn down post conflict and there was nothing in the withdrawal from Iraq and Afghanistan to make the Navy think otherwise. Thus, the Navy as an organization is adapting to a dramatic change in the way it plans for the future and possibly the way it operates.

D. INTERNAL NAVY ORGANIZATIONS

Just as the services of the DOD often spar with each other for budgetary resources, so the communities internal to the Navy push for more funding. While it is not earth shattering to hear that an organization wants to continue to exist and seeks to influence others, looking at concrete examples provides further validity to the OB model. The initial analysis below looks inside the Navy to examine the different communities. In the case of N8 and N9 the Navy recently reorganized the headquarters staff from a functional alignment to a product alignment, further reinforcing the resource allocation power of these communities. Following that is a brief discussion of different commands that span communities and the budgeting process in general. Paramount in the discussion of the FY2015 Long-range plan is the debate of submarines. Specifically the plan addresses the need (and cost) of the SSBN *Ohio* replacement and the current production of the *Virginia* class attack submarine.

1. Submarines

The United States Navy submarine community is often referred to as the "Silent Service," but in its attempts to further itself as an organization, it has been far from silent. Looking into one of the premier Naval Warfare magazines, *Proceedings*, it is not hard to find an instance of the submarine service pushing the submarine service's agenda. In a simple, one-page article, two authors argue that the SSBN program can help "guarantee our very existence, deterring potential enemies from using weapons with unimaginable consequences" (Bruner & Cockey, 2014). While the article focused on nuclear deterrence, there was no mention of the other two legs of the nuclear triad; long range nuclear capable bombers and shore based intercontinental ballistic missiles (ICBMs)—both operated by the U.S. Air Force. Looking further into *Proceedings*, it was not difficult to find another submarine article in which the other legs were mentioned. This article mentioned the flexibility of the other two legs but concluded that the submarine was the "ultimate backstop and guarantor of deterrence" and thus is the anchor of the nuclear triad (Hoeft, 2013). These presentations are both interesting as they focus on a medium primarily targeted at the other sea services and their components. This example

of organizational imperialism shows how the submarine community views itself in the strategic defense of the United States as more important than the other legs of the triad and therefore rightly deserving of additional funding.

When the Submarine community looks inward, the tone is only slightly different. Following with the OB ideas that surround the culture of an organization, it is safe to say that most members of the silent service already value the nuclear deterrence they provide and would probably rank it as superior to the other legs. Inside their organizational magazines the submarine community endeavors to educate their members on areas beyond the stated tactical purposes of submarines. There are several instances of reporting on the Virginia program as a "model of excellence" (Tofalo, 2014). Interviews with the Program Manager of the *Virginia* class line of ships gives further pride in the organization by explaining just how and why they are getting a new submarine. Described as the "most technologically advanced and operationally effective submarines in the world" there is really no bad news presented to the reader (Goggins, 2014). The mention of long delays is passed off as "growing pains that all new classes of ships face." In place of any talk of cost overruns are numbers like "$5.4 billion" and "16% in savings" (Wynn, 2011). Any trepidation a submariner would have held about the future of their organizational programs is quickly dismissed by their organization's own publication. Thus, the organizational culture and values are reinforced and the organization continues to believe in its existence. These ideas are further examples of imperialism and operational objectives from the OB model.

Though these documents prove interesting, they do not directly influence anything with the FY2015 Long-range plan. Instead, their influence is indirect. When members of the Navy brass read *Proceedings* or discuss the future of submarines with a submariner, they can begin to see the value that a submarine brings to the fight. Yet some of the more overt influence that the submarine community exerts on decision makers comes from the Naval Submarine League. A not-for-profit, the League's self-stated mission is "…to PROMOTE AWARENESS [emphasis added] of the importance of submarines to U.S. national security" (Naval Submarine League, 2014). It should also be

noted that the Naval Submarine League has 60 corporate members who most assuredly want to promote a continuing submarine production line.

The Naval Submarine League hosts a "JHU/APL (John Hopkins University/Applied Physics Lab) Submarine Technology Symposium" and a "Corporate Benefactor Days" convention that invite some key players responsible for shaping the future force. The Benefactor convention hosts top leaders in the Submarine community including the Commander, Submarine Forces, Director, Undersea Warfare, OPNAV, and Program Executive Officer, Submarines. More importantly, in attendance at the 2014 convention were two members of the Congress. As funding spans party lines, there was a Democrat, the Honorable Richard Blumenthal and a Republican, the Honorable Rob Wittman. At that time they both served on their respective Senate or House Armed Service Committee, and represented Connecticut and Virginia, respectively, each a home to submarine bases. The Submarine League knows where to seed its ideas. Also attending the symposium was an advisor to Congress; the Honorable Ronald O'Rourke gave the luncheon address. As an expert in Naval Affairs for the Congressional Research Service (CRS), he was quick to point out that his views were his alone and not those of Congress or the CRS. In his speech he stated "Over the last year or so, I have been interested to observe that an awareness of the value of the Submarine Force in generating this asymmetric advantage appears to be growing among policy makers" (O'Rourke, 2014a). As stated in the OB outline, the first four objectives of organizations inside the DOD are to avoid the following: "(1) a decrease in dollars budgeted, (2) a decrease in manpower, (3) a decrease in the number of key specialists, (4) reduction in the percentage of the military budget allocated to that service" (Allison & Zelikow, 1999, p. 169). By focusing on the people who make those decisions and a potential influencer of those decisions, the submarine community effectively exhibits the characteristics of a DOD organization.

All of this influence no doubt aided the submarine agenda in the push to build more even in a tight fiscal environment. But there is another organizational factor at play for "Big Navy." Organizations with defined capabilities do not want to lose that capability and therefore will fight to preserve it. All of this combined to produce a

FY2015 plan that required a set number of submarines even though the plan itself said it was unsustainable.

2. Naval Aviation

Naval Aviation is very similar to the Submarine Community but has a much sharper focus on the type of ships it wishes to procure: Aircraft Carriers. While it is true that Navy helicopters embark on most cruisers, frigates, Flight IIA destroyers and now the Littoral Combat Ship, Naval Aviation as a community does not have to expend energy keeping those types of ships in production; they are lobbied for and operated by the Surface Navy. And while NAVSEA oversees the construction of such surface combatants NAVAIR must work with them to ensure their airworthiness for helicopters. At the same time NAVAIR and NAVSEA must work together to design and build aircraft carriers. This example of fractionated power illustrates how two organizations with different focuses must work together to design and build aircraft carriers and air capable ships. Meanwhile, the organizational efforts of Naval Aviators mirror almost exactly the structure discussed in the submarine community and generally focuses on the construction and national importance of the aircraft carrier.

For example, Naval Aviation has several professional organizations dedicated to promoting and educating the force including The Association of Naval Aviation, the Naval Helicopter Association, and the Tailhook Association. Each one of these smaller organizations has internal magazines and webpages that exude the values, history and capabilities of Naval Aviation. In "*The Hook*," a quarterly magazine from the Tailhook Association, Commander, Naval Air Forces said "The fiscal challenges and extraordinary dynamics back inside the beltway continue and are likely to for some time. But at the same time, we're seeing the *Nimitz* Carrier Strike Group turned around after mission completion and ordered to remain on station" (Buss, 2013). It is clear that Naval Aviation understands the environment they operate in but also wants to ensure that their members understand the value they bring to the Navy and the nation as a whole. Of course this was directed internally at the organization. As we start to look outside, we can see how the organization fights to maintain its culture and ensure its mission continues.

An article posted in *Proceedings* highlights just how important understanding Naval Aviation and its current state is to utilizing its full capabilities. “Understanding the purpose behind a course of action motivates and inspires an organization’s members, aligning the efforts required to bring a project to life” (Sinek, 2011). The article highlights how a wave of new multi-mission platforms will bring enhanced capabilities and interoperability and that “Nothing embodies the flexibility of naval aviation, the strategic impact of forward presence and the inherent benefits of modularity like a nuclear-powered aircraft carrier” (Snodgrass, 2013). Having defined the amazing things that Naval Aviation can do, the conclusion of the article is that it is essential to move towards a new aircraft carrier. Oddly enough, the quote from Sinek, though referencing naval aviation, could be utilized by any organization to further its purpose.

In January of 2014, as the budget realities of keeping 11 carriers operational and having to refuel the USS *George Washington* began to become unaffordable, Naval Aviation circled its wagons and began to push back against anyone who would withhold funding (Cavas, 2014a). Turning towards the naval audience, once again in *Proceedings*, the Director of Air Warfare on the Chief of Naval Operation’s staff argued that the question was not how to afford to build them (carriers), but “How can we ***not*** afford to build them [emphasis added]” (Manazir, 2014)? In the following months, as the budget noose tightened, Naval Aviation argued that despite some cost increases, the overall leap in capability will greatly outweigh the cost (Manvel & Perin, 2014).

As the Naval Aviation effort began to pick up steam, other members of the Navy began to realize just what lay in store for the entire team if one carrier were to be removed. Speaking at the Western Conference and Exposition (WEST 2014), the commander of U.S. Fleet Forces remarked that a carrier cut would increase the operational tempo for sailors on other carriers (LaGrone, 2014d). Around the same time, the U.S. Pacific Commander echoed the need for 11 carriers (Grady, 2014). All of this talk, not to mention what was being discussed at the capital shows the effort in one organization championing its cause. In the end, the funding was made available and Naval Aviation will keep its 11 carrier force, at least for the time being. Organizational priorities in Naval Aviation are obvious: aircraft carriers. Organizational imperialism is

evident in the fight mustered in support of an 11 carrier Navy. The loss of a capability such as an aircraft carrier would be unacceptable to an organization built on established routines and capabilities.

3. Surface Navy

The idea of the Surface Navy as an organization could be foreign to many people not familiar with the internal organization of the Navy. Indeed, many people see the Navy as only ships and so use the term Navy interchangeably with the Surface Fleet. For the purpose of this paper, the Surface Navy can be best viewed by looking at the internal publications, articles in *Proceedings* and the actions of the Surface Navy Association (SNA). Similar in purpose to the previous community's professional organizations, the SNA's first stated purpose is "To promote recognition of the role of the Navy and Surface Forces in United States' security" (Surface Navy Association, 2014).

The winter 2013 issue of Surface Warfare contained a summary of where the Surface Navy sees itself from the view of its leadership. In a section called "Cardinal Headings," the Admirals laid out the purpose of the surface fleet as well as the challenges associated with the current fiscal environment. The theme throughout harkens on the value a ship can provide through its life, the flexibility surface ships provide, and the occasional need to spend a larger price to achieve the right capability. "…this may lead to additional costs at the time of purchase, but the value over an expected service life must be weighed more heavily than the initial "sticker" price" (Commander, Naval Surface Forces, 2013). This could be a subtle explanation of the curtailment of the LCS and possible follow on of the small surface combatant. However, on the same topic of price, the *Zumwalt* class destroyer has become so expensive without a massive gain in capability that it will be limited to three vessels. In that case the initial sticker price could not even justify the value provided. As organizational imperialism would drive an organization to continue to procure additional vessels, the realities of budgetary famine can restrain what an organization can accomplish.

Knowing what an organization values internally allows an assessment of the opinions it puts forwards and actions it takes on its behalf. As the Surface Navy begins to

spread its message to its fellow naval forces, similar organizational patterns emerge. Articles championing the Aegis fleet and the development of Ballistic Missile Defense abound. The story of a shoot down of a rogue U.S. satellite, named USA 193, paints the surface fleet as the only thing standing between a peaceful future and potential ecological ruin (Hicks & Grecco, 2014). The Director, Surface Warfare Division on the Chief of Naval Operations' (CNO) staff takes time in another article to outline how the guidance of the President and the CNO are shaping the future of the Surface fleet (Rowden, 2014). Again the common themes of budgetary constraint and increased operational tempo are addressed. Yet the Surface Navy also acknowledges that these challenges will leave itself in a position where it will lack a surge capability in order to provide for its deployed fleet. Unlike the Aviation and Submarine community who roundly fought any future degradation, the Surface Navy concludes that this is inevitable. There is a cultural mindset visible in the Surface Navy in which the community accepts doing more with less. Deployment lengths are growing and down time is shrinking but the Surface Navy prides itself on its ability to push through.

When the Surface Navy seeks to influence decision makers, it is very clear that they cast a wide net. The speaker invitation list from the SNA 2014 symposium includes U.S. Navy Admirals across the communities, a Senator, the Secretary of the Navy, as well as Admirals and Generals from the Coast Guard, Marine Corps and U.S. Air Force. These speakers were chosen for the expertise in their field, but also to show support for the surface community as a whole. As the speakers and members of the SNA walk around their 2014 convention, they are also inundated with over 60 vendor booths from industry. Themes of organizational priorities and imperialism are evident in the actions of the Surface Navy. All of this comes back to the FY2015 Long-range plan showing that the Surface Navy is playing the long game. Indeed, looking at the total ship numbers in the middle of the 30 year plan puts the Navy well over its 306 ship goal.

E. INTERNAL COMMANDS AND PPBE

The process of actually ordering and paying for ships is an extremely involved process which is far more in depth than the annual shipbuilding plan. It involves

commands across the Navy that plan, build, and utilize these vessels and offices that develop a budget that the Navy can submit to Congress to pay for these new warships. In its simplest form, the cycle of determining what you need, to paying for it, is called planning, programing, budgeting, and execution or PPBE. The main offices in preparing the document come from the OPNAV N8 and N9. While N8 actually releases the document and ensures that the proper procedures are followed, N9 holds great influence over the content of the plan. A simple way to view the relationship is that N9 determines what the Navy wants while N8 determines what the Navy can have. When addressing PPBE, the primary focus will be addressing action as a result of organizational output.

1. PPBE

The planning portion of PPBE is the first step of the process and sometimes the most abstract. It involves inputs from the CNO, the Combatant Commanders, and other high level officials to determine just what it is the Navy needs to do its job. The output is a defined capability requirement. This process is not a one-time occurrence and is constantly being reviewed. When able, planning attempts focus on individual fiscal years though the requirements may span decades (Schwartz, 2013).

Following the completion of the planning requirement, staffs inside the Navy begin setting and building the proposed plans into actual programs. The specific capabilities defined in the planning portion are vetted within each service and down to individual programs. This is the most important part for planning for future vessels. Looking out five years, the programmers must balance the cost of programs in order to produce as much capability as possible. Each program establishes a program objective memorandum or POM that outlines exactly what the program will entail. Programs that are viewed as essential move on to the next phase (Schwartz, 2013).

The budgeting phase of PPBE is the portion where actual monies are set aside for the various programs. This occurs simultaneously with the programing phase. Budgets tend to increase over the fiscal years for a new program as the size of a program increases (Schwartz, 2013).

The final phase, execution, is the actual implementation of the planning, programing, and budgeting phases as well as collecting data on how the programs are performing. For most programs there are established metrics by which they are measured and evaluated (Schwartz, 2013).

Figure 10 displays a graphical representation of the ongoing PPBE process and highlights the various N8 offices involved in the process. While the shipbuilding plan normally accompanies the budget, but the budget process takes more than a year to complete, as one is being released, the next one is already being revised and constantly being refined.

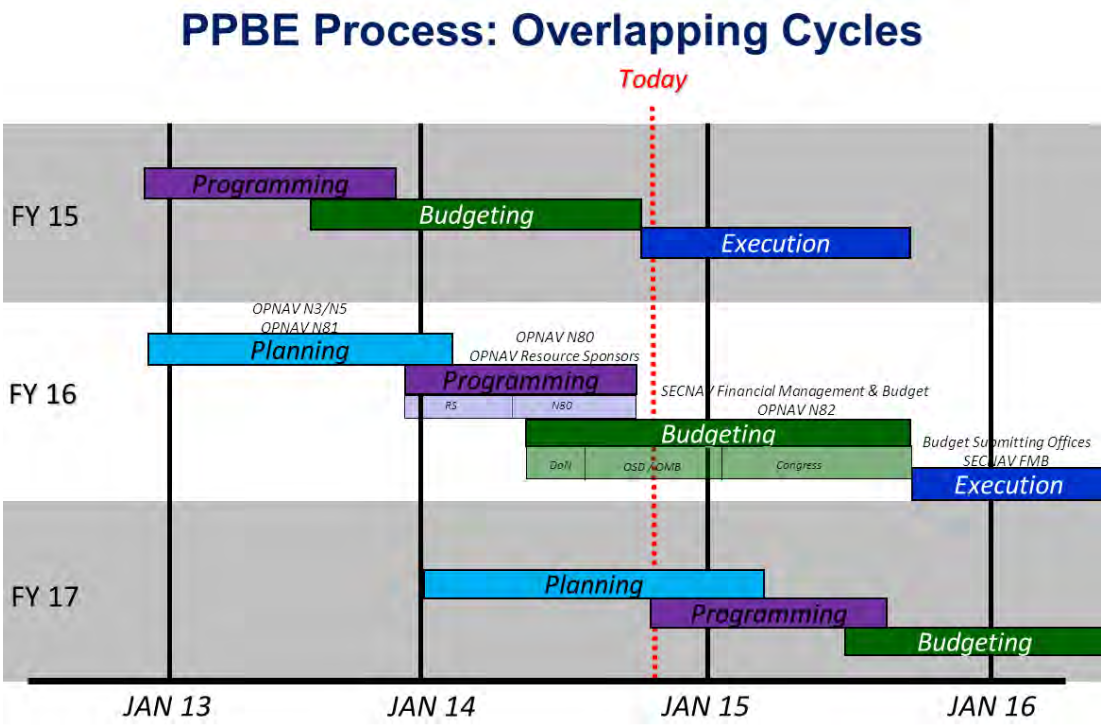


Figure 10. PPBE Overview (from Bruner, 2014)

2. What you Can Have vs. What you Want: N8 and N96

In 2012 the CNO realigned his staff to better fulfil the needs of the Navy. While historically N8 had housed both the financial team and the future warfighting requirements planning team, the CNO moved N86, Director Surface Warfare, to a newly

created office, N96, Director of Surface Warfare. The Directors of Expeditionary Warfare, Undersea Warfare and Air Warfare were also set up in new offices, from N85, N87 and N88 to N95, N97, and N98, respectively. These new positions fell under a new three star position, Deputy Chief of Naval Operations for Warfare Systems (N9). The CNO's purpose was to "enhance the Navy's ability to navigate our fiscal challenges and deliver fleet and platform readiness while aligning responsibility and accountability to those who develop and sustain our Navy's warfare capability" (Greenert J. W., 2012). N96 still views his job to "plan and program for current and future readiness, including maintenance, modernization, manpower, sensors, weapons, and training, so the surface ships operating around the world today have everything they need to complete their assigned missions" (Rowden, 2014). However, to place this plan into action they must work together with the N8 offices to properly allocate resources.

The realignment plays well into the outline of the OB model. While the staff had previously been organized in a functional alignment (manpower, operations, and acquisitions) the new organization is a product alignment (expeditionary, ships, submarines, and aircraft). Acceptable performance has changed accordingly. So has the way problems are defined. Because N8 and N9 now have set mission and requirements which do not fully align, there will be more of a challenge to any submission or request. In addition, the N8 office now enforced SOP's and follows the guidance of government leadership, in this case the CNO, to ensure fiscal responsibility. N9 must now work its deep desire for more construction into the constraints imposed by N8.

In a similar manner, N96 has taken its guidance from the President in the DSG and reestablished its priorities as follows: (Rowden, 2014)

- Support rebalance to Pacific
- Build to the future
- Make the things we have today work

Allison and Zelikow would view these leadership induced shifts as "triggering existing organizational routines in a new context" (Allison & Zelikow, 1999 p.174). The overaching mission has remained the same, but the focus has shifted from land warfare in the middle east to the open ocean of the Pacific.

3. NAVSEA and CFFC: Build it and Use it

Once planning and funding have concluded, the task of building the fleet takes over. While much of the physical construction of United States Navy vessels is completed at various civilian shipyards around the country, it is NAVSEA that oversees the process from conception to commissioning. The NAVSEA stated mission is simple, "We design, build, deliver and maintain ships and systems on time and on cost for the U.S. Navy" (Naval Sea Systems Command, 2014). NAVSEA works with the planners previously discussed to design a ship with a required capability and then utilizes the industrial base available to bring that new ship to fruition. The same concept applies to many new technologies or updates that will be placed on existing ships.

Once these vessels are constructed, tested and commissioned, they pass to the user; in the case of ships this is CFFC. The first tenet of the Fleet Forces Mission statement is: "Train, certify and provide combat-ready Navy forces to Combatant Commanders that are capable of conducting prompt, sustained naval, joint, and combined operations in support of U.S. national interests" (U.S. Fleet Forces Command, 2014). This mission is impossible without the ships provided by NAVSEA and funded through the N8/N9 process.

What is interesting about the N8/N9 and NAVSEA/CFFC process is the division of responsibilities amongst the organizations. Such division could serve as a form of checks and balances to ensure that each organization stays in its respective lane and focuses all its energy on doing its job to the best of its own abilities. This prevention of central authority allows for "more specialized attention to particular facets of problems than would be possible if government leaders tried to cope with the problems by themselves" (Allison & Zelikow, 1999 p. 167). A review of organizational websites show how NAVSEA and CFFC pride themselves on their work and emphasize how essential their jobs are to national security (Naval Sea Systems Command, 2014) (U.S. Fleet Forces Command, 2014). While CFFC may want as much money as possible in his Operations and Maintenance – Navy (O&MN) budget, he also recognizes that N9 needs to buy more ships for his operations. In a similar fashion, articles from the director of N96 express the same understanding and viewpoint (Rowden, 2014). As identified by

Allison and Zelikow, each organization has now established its own identity, culture, and set of specific capabilities.

The principles of OB can also be employed here to explain a discrepancy identified in the RAM chapter. The information in Table 5 displayed a discrepancy in the ship counting categories between the FY2015 Long Range Plan and the official count at the NVR. Though they both agreed on the same total number (290) it is odd that they would use different categories of ships to reach this number. The answer may lay in the organizational routines of the two parent organizations. N8 is responsible for the long range plan while NAVSEA is responsible for the NVR. Each organization has a set way of doing business that need not be reconciled with other offices in the Navy. Thus, there are two valid ways to distribute categories of ships and still reach 290.

F. ORGANIZATIONS EXTERNAL TO THE NAVY

Moving outside the Navy there are several other organizations that have a stake in the annual 30 year shipbuilding plan. Each one has its own distinct interests and will fight for its cause and its representation in the long range shipbuilding plan. Sometimes these groups choose to stand alone while other times they work together with other organizations to support a joint cause. Throughout this section, the OB aspects of organizational missions, operational objectives, cultures and existing capabilities will be paramount.

1. United States Marine Corps

The closest organization to the Navy (and technically still inside the department of the Navy) is the United States Marine Corps, USMC. The idea of the amphibious Navy is nearly as old as the Navy itself. Traditionally in the US, the Marines have been the service employed in that amphibious role with the Navy providing transport. The Marines view this as one of their core competencies and are currently and have been fighting for a larger portion of the force for some time. Directly from the Marine's website we can find a good internal perspective on the importance of the amphibious fleet. The "Amphibious Overview" provides a detailed outline of just what the combined Navy-Marine team can bring to the fight. Included in this document are three critically

important areas that align well with the current U.S. defense policy: (United States Marine Corps, 2014)

- Forward presence to support engagement and theater security cooperation
- A ready force to immediately respond to emergent crises
- A credible and sustainable forcible-entry capability, operating from the sea, over the horizon, at night or during periods of reduced visibility

Analyzing what the USMC as an organization want to accomplish relative to the 30 year shipbuilding plan, we see that it continues to follow the outline of the OB model. In some articles the Marines contend that the current shipbuilding plan is out of balance and has built up the long range strike capabilities of the fleet at the expense of the amphibious side (Hammond, 2013). While admitting that all aspects of the fleet have declined since the height of the cold war, the author argues that the newfound capabilities of the fleet do not serve the national interest and that "amphibious flexibility is the greatest strategic asset that a sea-based power possesses."

A targeted article by a retired Marine Colonel and current Naval War College professor attacks the 30 year shipbuilding plan directly. Recognizing the unsustainable costs and the current trend of using the amphibious fleet as a relief valve when the Navy needs more shipbuilding money, the author charges both the Navy and Marine Corps leadership with pursuing more cost effective options to reach the target of 38 amphibious ships agreed upon in the early 2000s (Fuquea, 2014). This idea of shifting targets falls in line with the idea of a budgetary famine but has yet to achieve full acceptance throughout the Marines.

Outside the pages of *Proceedings*, the Marine's leadership is not shy about voicing their opinions. The Assistant Commandant of the Marine Corps expressed his views on the current state of the Amphibious Navy as representative of the Marines as an Organization. "We have a paucity of amphibious shipping and many of us in the Marine Corps are not happy with it, we are not happy as an institution" (Freedberg, 2014a). What is also important to emphasize is that to avoid offending the Navy and its decision makers, he allows some understanding for the current shipbuilding plan. "I love my Navy shipmates and they have an incredible challenge with capital investments, ok? They've

been working very hard and very well in a really resource-constrained environment" (Freedberg, 2014a).

The Marines have recently teamed with industry to form an "Amphibious Warship Industrial Coalition" (Freedberg, 2014a). The purpose is clearly summarized by the director of expeditionary warfare on the Navy Staff, a Marine Major General, "Having a coalition base like this, I think… is probably very important, we [haven't had] that to be able to get that message out there." The Marines as an organization are working hard to continue their culture and have found this option as a possible strategy to a potentially devastating problem.

2. Industry

Whether to look at the shipbuilding industry as a whole or one single organization does present some challenges. Oftentimes companies within the industry actively compete against others and company secrets are carefully guarded. At the same time, consolidation in the defense industry has been common, and all companies are hoping the Defense Department and in this case, the Navy, will purchase more of whatever the industry is selling. In the case of the 30-year shipbuilding plan, industry wants the Navy to buy more ships.

The idea that an industry wants a strong customer base is obvious. What is interesting is how the industry has completely inserted itself into so many parts of the military. Besides the previously mentioned Amphibious Warfare Industrial Base Coalition (AWIBC), there also exists a Submarine Industrial Base Council (SIBC) and an Aircraft Carrier Industrial Base Coalition (ACIBC). The following are the texts of their mission statements:

AWIBC (AWIBC, 2014)

> AWIBC advocates for Congress to provide funding for the sustained and stable construction of amphibious warships vital to the mission of the U.S. Navy and U.S. Marine Corps.

SIBC (SIBC, 2014)

> The Submarine Industrial Base Council's mission is to educate policymakers and the public on the need to preserve the strength of the U.S. submarine force and promote the value of the submarine industrial base as a vital part of our national security structure.
>
> ACIBC (ACIBC, 2014)
>
> The purpose of ACIBC is to communicate to members of Congress, the media and the general public the importance of sustained federal funding for the U.S. Navy aircraft carrier and maintenance program to preserve the strength of the aircraft carrier force and the aircraft carrier industrial base.

Not surprisingly, the mission statements could be copies of each other if not for the specific mention of their group. Further review of these organizations shows just how broad of a base they claim to support. The AWIBC is new and does not yet list its members nor specify how many individual companies it lobbies on behalf of, but the SIBC and the ACIBC claim to lobby for 4,000 and 2,000 companies, respectively.

Each one of these organizations was formed from a need to protect its core competencies. In the case of AWIBC, the shipbuilder Huntington Ingalls brought the fellow companies together for lobbying purposes (Freedberg, 2014a). The ultimate goal is to hopefully have the companies under the AWIBC umbrella all writing their congressmen and expressing concern with the current amphibious Navy.

Because of the budgetary famine that the industry is now facing, there is a real sense that the industry is actually at its lowest possible point of being able to support national defense and the Navy has to keep the current builders employed. With only one shipyard that can build aircraft carriers (Newport News), two that build submarines (Newport News and Electric Boat), two that build large surface ships (Bath Iron Works and Ingalls), one that builds amphibious vessels (Ingalls) and one that builds auxiliaries (NASSCO) the Navy has acknowledged publicly that they do not want to harm the industrial base that they rely upon and are actively working with Congress to provide stability for some of the yards in-between naval ship construction (Stackley, 2013).

Due to lack of specific lobbying information we are unable to further delve into the role of industry in the 30-year shipbuilding plan. It is clear that industry leaders and the established lobbying groups meet with Navy leaders at regular intervals. However, as

most communities in the Navy already want to increase their slice of the budgetary pie, these meetings are likely no more than an opportunity to ensure they are all sending the same message. The most important role that industry plays is its influence on Congress. Because the power of the purse resides in those elected officials, it is in industry's best interest to keep them well funded in their reelection campaign and to constantly push their agenda. Similar to the objectives discussed for DOD organizations, the industry seems to hold to the first three: "(1) a decrease in dollars budgeted, (2) a decrease in manpower, and (3) a decrease in the number of key specialists. Organizational imperialism and capability are both evident in the lobbying methods of the shipbuilding industry.

G. SUMMARY OF THE ORGANIZATIONAL BEHAVIOR MODEL

As this chapter demonstrates, a more in-depth comprehension of a government decision can be attained through a better understanding of the organizations involved and how organizational behavior impacts that decision. The analysis identified the players involved with the FY2015 Long Range Plan and provided examples of routines and priorities that ultimately shape the document. The idea that power is not held by one individual and that fractionated power exists across the Navy is displayed in the internal struggle amongst many organizations affected by the FY2015 Long Range Plan. For example, N8 and N9 must work to resolve their competing mission priorities; thus, trade-offs between cost and capability shape the document from its inception. As evident in the current plan, the future budgetary constraints are so formidable and the required capabilities so essential that a deal of sorts was reached. N9 is planning to build the *Ohio* replacement while N8 is advising Congress that this cannot be completed without additional funding.

The concept of organizational change through budgetary famine was unmistakable in nearly every organization with a stake in the future fleet. Naval Aviation faced the threat of losing an aircraft carrier while the Marines are unable to force the Navy to procure more amphibious vessels. Costs and capabilities have forced the Surface Navy to prematurely end production of the *Zumwalt* class and LCS and develop new

plans for the future of the fleet. One of the plans favored by the surface navy is evidence of two other tenets of the OB model. By producing more *Arleigh Burke* class destroyers, they maintain their existing organizational capabilities and avoid uncertainty.

In the civilian sector, like groups of shipbuilders have formed alliance organizations with the stated purpose of keeping themselves in business. Profitability is easily inferred from the mission statements of these alliance organizations which is a clear example of organizational imperialism. These groups lobby both the Navy and the Congress to ensure they grow and thrive.

The OB model works well as a lens to examine the FY2015 Long Range Plan by showing the organizations behind the plan and the priorities that govern their actions. Because no one organization is all powerful, the ultimate outcome is based off of routines and procedures. The increasingly constrained fiscal environment can be seen as the dynamic event leading to the dynamic change evident in the FY2015 Long Range Plan. With the impending budgetary famine, organizations must re-evaluate priorities, and seek out new areas of influence to further their existence.

THIS PAGE INTENTIONALLY LEFT BLANK

VI. APPLICATION OF THE GOVERNMENT POLITICS MODEL

In the final model of *Essence of Decision,* Allison and Zelikow emphasize the values and positions of the major players in government as the driving force behind a government decision. Much of the behind the scenes view they provide is based on declassified government documents surrounding the Cuban Missile Crisis (Allison & Zelikow, 1999). This access provided an unprecedented level of clarity into the political workings of the government and enabled the full effect and success of the Government Politics (GP) Model as a way to view complex government decisions.

A. EXPLANATION OF THE GOVERNMENT POLITICS MODEL

In the third and final model developed, the output will not be viewed as that of a rational actor, or organizational workings, but as the "result of bargaining games" (Allison & Zelikow, 1999 p. 255). In the GP model, there are many players each with a host of issues. For example, while a sitting senator obviously has duty to his/her country, he/she balances that with the other duties to his/her party, his/her constituancy, and his/her reelection campaign fund. These sometimes conflicting interests force a leader to choose priorities and often bargain to support many goals. Yet the GP model is not restricted to elected political leaders. Captains of industry, military leaders, and experts in certain fields can and often do play a role in political gamesmanship. Many times these players represent larger organizations each with their own internal power struggle and key actors. Often times leaders at the top of a complex organization are pulled in so many directions that the end result or decision by a group may be far different that what was originally intended by the individual leaders (Allison & Zelikow, 1999 p. 258).

Unfortunately the inner workings of the much of the Navy, including that of the office of the Deputy Chief of Naval Operations (Integration of Capabilities and Resources) (N8) have not been released and such insight into the Annual Long-Range Plan for Construction of Naval Vessels for FY2015 is lacking. Nor is there much unclassified public information regarding the force requirement discussions of the President and combatant commanders. Alison and Zelikow note this is quite often the

case for the GP model: “Accurate accounts of the bargaining that yielded a resolution of the issue are rarer still.” However, what is available is still valuable. The public statements by major players and the document itself allow for valuable inferences to be drawn. While viewing the FY2015 Long Range Plan from the Government Politics lens may be somewhat limited in scope, what documents, interviews, and committee meetings are available will be examined utilizing the following outline laid out in *Essence of Decision:*

B. GOVERNMENT POLITICS OUTLINE

Moving from an organizational behavior model to a government politics model is not a difficult step. Each organization is made up of individuals and at the top sits a president, CEO, commanding officer, etc. These individuals have a large say in where their organizations lean but are not all powerful. They are supported by groups of people below them each with their own ideas. Through compromise, bargaining, and positioning, decisions are made. Thus, “the name of the game is politics” (Allison & Zelikow, 1999 p. 255).

1. Basic Unit of Analysis: Governmental Action as Political Resultant

The Annual Long-Range Plan for Construction of Naval Vessels for FY2015 is the result of compromise, conflict, and possibly even confusion within the Navy due to specific political interests and unequal influence. In this sense the word ‘political’ means that the “activity from which decisions and actions emerge is best characterized as bargaining along regularized channels among individual members of the government” (Allison & Zelikow, 1999, p. 295).

2. Organizing Concepts

a. Who Plays?

Players in Positions: The Navy is neither a unitary actor nor an amalgamation of different organizations; instead it is made up of individuals in various jobs. Different jobs come with different levels of power and responsibility that can shape an individual’s views. Communities and commands inside the Navy are led by individuals who must take

into account his/her own feelings and interests as well as those of his or her organization. Industry leaders face similar constraints. As previously mentioned, the elected political leaders face perhaps the most numerous constraints of them all. Outside actors such as the press or resident experts of certain fields could play a role as well anytime their participation is warranted or they force themselves into the bargaining act. The analysis presented in this thesis will focus on the actions of a few key players.

b. What Factors Shape Players' Perceptions, Preferences, and Stands on the Issue at Hand?

Parochial Priorities and Perceptions: Just as organizations fought to maintain their own interests in the OB model, individuals at the heads of organizations tend to fight for their organization's interests as well as their own. It is not unheard of for a member of the military to negotiate with a defense contractor for a job in their area of expertise upon their retirement (after any legal time off requirements.) In a similar fashion, the heads of the community organizational bodies discussed in the OB chapter (SNA, Tailhook, Naval Helicopter Association etc.) are all active or retired military in those respective communities.

Goals and Interests: Understanding how each individual views the goals of the National Defense Strategy, DSG and the QDR can influence how they play their hand. Ultimately these are still the documents around which action is centered. However, a hawkish politician may push for a more militaristic interpretation (therefore more funding) as opposed to someone who wants only diplomatic channels to drive national policy.

Stakes and Stands: Overlapping interests and the impact a decision can have on an organization shape an individual's stance. For example, more money for one program will almost assuredly remove money from another. The fiscal environment still remains tight and there are no actions without consequences.

Deadlines and Faces of Issues: Deadlines and events force the players of the game to take a stand and defend their position. The Navy must present its long range plan every year to Congress. Similarly, the Navy must present and defend its budget request every

year. These deadlines often cluster the areas of interest in the long range plan. Of course, Congress does not have to pass a budget every year but they must at least attempt something.

c. What Determines Each Player's Impact on Results?

Power in three forms determines each player's impact: (Allison & Zelikow, 1999 p. 300)

- bargaining advantages
- skill and will in using bargaining advantages
- other players' perceptions of the first two ingredients

This is the true essence of politics. Shrewd negotiation or positional authority will get anyone only so far. No one person in the government has all of the power. Therefore, bargaining is often the only way to achieve your goals. Yet in a military organization, there are instances of some absolute power. For example, if N9 issues an order that they want something a certain way, then N96 will comply. On the other hand, N8 has no requirement to comply with an order from N9 and vice versa, but they do have to work together. N9 may have an advantage in saying he/she represents the needs of the fleet, but N8 has an advantage in having only so much funding available. Any agreement comes from negotiation.

d. Action as Political Resultant: No One Person Will Determine the Outcome.

Because no one player has all the power, each player will use their own power to influence others and bring other players to their side of the argument. Quite often the ultimate result is a compromise of some form. Political games inside the government generally have some form of rules, formal or not. In the military, a chain of command governs how you approach senior officers. While N96 may have to follow the orders of N9, he may also have a hand in shaping them. If N96 can convince N9 that his way of doing something may be the best, than N9 may make that a practice throughout his office.

At the same time, a player may take an action that seems contrary to his/her desires. The hope in this case is that others may respond in a way to give the player what they really want in the first place. For example, a subordinate may propose to remove an aircraft carrier from service due to budget cuts just so someone with the power of the purse may act to avoid such an outcome.

3. Dominant Inference Pattern

The Annual Long-Range Plan for Construction of Naval Vessels for FY2015 is the result of bargaining amongst individuals and groups inside and outside of the Navy. The GP Model allows for errors and mistakes that end up in the final decision.

4. General Propositions

(1) Action and Intention

The final Navy action does not presuppose Navy intention. For example, while N8 and N9 each have their priorities, when the two meet to formalize a decision, the ultimate outcome will be a compromise and not exactly what each one envisioned.

(2) Where you stand depends on where you sit

Each player represents an organization that imposes a unique set of demands or desires. “Knowledge of the organizational seat at the table yields significant about a likely stand” (Allison & Zelikow, 1999, p. 307). Sometimes this is obvious; NAVAIR will push for aircraft carriers. Sometimes this is not as obvious as one may think. If the head of N96 (Director, Naval Surface Warfare) spent his entire career in the amphibious side of the Navy, then that person may have a predisposition to favor more amphibious vessels.

(3) Problems and Solutions

Each player will likely focus on the solution to their individual piece of a problem rather than the problem as a whole. If the problem is the Annual Long-Range Plan for Construction of Naval Vessels for FY2015 then it is likely the USMC will focus on the construction of amphibious vessels.

(4) Misexpectation, miscommunication, and reticence

The GP model allows for errors in the process to be carried through to the end result. Just as humans are flawed, their decisions can be flawed as well. A shipyard may project the cost of a new vessel at $X millions of dollars and though they were well intentioned, they may make some miscalculations and be well under the actual cost. This estimate, however, may move the Navy to plan to purchase additional vessels and therefore be stuck later when they do not have enough money to fund their long range plan.

5. Evidence

Unfortunately the evidence for the GP model is lacking as previously mentioned. Allison and Zelikow note this problem as well and state that "Much information must be gleaned from the participants themselves" (Allison & Zelikow, 1999 p. 312). Because the author did not have access to interview insiders, or examine high level government strategy documents, the analysis is somewhat speculative and based on a small sample of actors and inferences from their actions and statements.

C. THE CNO

It is nearly impossible to discuss any current Navy policy without mentioning the head of the Navy. The current Chief of Naval Operations, Admiral Jonathan Greenert, rose to become the leader of the Navy from the submarine community (United States Navy, 2014). He commanded various units in the fleet and as served as the deputy chief of Naval Operations for Integration of Capabilities and Resources (N8). As CNO he is arguably in a more influential position than anyone to chart the course of the Navy. He has both the ear of the President and the Congress and sets guidance of his own for the entire Navy to follow. Though there are no internal memos or recordings available to codify his true positions, he has testified before Congress and given many interviews that give some insight to his overall position. An examination of the testimony he gave on 12 March, 2014 regarding the president's FY2015 budget submission exemplifies the GP model.

In the initial discussion of the FY2015 budget, the CNO immediately references the QDR and DSG as his guiding documents for planning. From those documents the CNO highlights the Navy's guidance to "continue to build a future fleet that is able to deliver the required presence and capabilities and address the most important warfighting scenarios" (Greenert J. , 2014). Following this the Admiral reiterates the potential harm that can come from the Budget Control Act of 2011. Because the CNO holds better knowledge of the possible impact to the Navy the BCA would have, he does hold some bargaining advantage over congress. And because Congress has ultimate authority on the BCA, this is an excellent example of the need for communication amongst leaders and the possibility of negotiation. Indeed the following page of his testimony highlights tough choices the Navy was forced to make because of the current fiscal environment. Because some of these changes include reductions in spending in certain congressional districts, it is clear that the Admiral understands his audience and how to explain the Navy's current situation in ways that might encourage other parties to support him in attaining additional resources.

The Admiral takes an interesting approach when presenting how the fleet will look in 2020. He identifies a battle force of 308 ships in 2020 but there is only a footnote to address the change in ship counting guidelines. There is also a notable omission in the footnote; the problem of target end strength and revised counting rules is not addressed. This issue of changing ship counting rules but not changing the target number of ships was first addressed in the RAM chapter. It is expected that a rational actor would present his/her argument for a decision alongside all available information. Yet this is where the RAM is limited in explaining such omissions and the where the GP model becomes useful.

Throughout the CNO's entire testimony, there is never a reference to the previously established goal of 306 ships. The CNO's goals and interest center around funding the Navy and procuring more ships. There is discussion on how thin the fleet is stretched and how hard is to find ships to fulfill missions. With current force levels, the Navy is only capable of meeting 44% of the Combatant Commanders requests. The only target number the CNO mentions is a fleet of 450 ships which would then meet 100% of

the requirements of the Combatant Commanders (Greenert J. , 2014). While the actual reason the 306 target number is nowhere to be found is not clear, there is one theory. In the footnote explaining the new counting rules, the difference in ship levels in FY2020 is 308 under the new rules and 302 under the old rules. See Figure 11 for the image from the actual document. If the Admiral had said the Navy's target was 306 ships and then presented a plan in which the Navy reached 306 ships only by changing the counting procedures then he would be inviting serious scrutiny into his future plans. Alternatively, the CNO could have conducted an additional FSA to see if the target number had shifted under the new counting rules, but this too would have invited more inquiry. As far as the GP model is concerned, this could have been a simple example of a miscommunication, error or reticence. This presentation method could also be the CNO's chosen method to address a specific problem. Without an interview with the CNO asking him this question directly the reason for the omission may never be clear. This is where the GP model excels by allowing for misexpectation, miscommunication, and reticence in a decision.

The following table illustrates the differences between new and old Battle Force accounting guidelines:

	Today	*FY 2015*	*FY 2020*
PB-15: New Guidelines	289	284	308
PB-15: Old Guidelines	284	274	302

Figure 11. Highlighted changes from the adjustment of ship counting rules (from Greenert J., 2014)

Looking into more specifics of the CNO's testimony, we can see a common link of priorities with the FY2015 Long Range Plan. The *Ohio* replacement is described by the CNO as "our top priority program" and is initially highlighted in a section explaining the possible negatives of a lack of funding (Greenert J. , 2014). Later, the program is addressed in multiple sections as essential to the country and the number one of six programming priorities for the Navy. However, the portrayal of future funding challenges is not as dire as in the FY2015 Long Range Plan. The current plan outright says the funding level required is "unsustainable" and "cannot be accommodated by the Navy from existing resources…" (Deputy Chief of Naval Operations [Integration of Capabilities and Resources (N8)], 2014). Rather than striking a dismal tone, the Admiral

admits increasing concern and states: “The Navy cannot procure the Ohio replacement in the 2020s within historical shipbuilding funding levels without severely impacting other Navy programs” (Greenert J. , 2014). This line of thinking is somewhat similar to the FY2014 Long Range Plan where funding the Ohio replacement without a funding increase will simply take away from construction of other ships in the battle force (Deputy Chief of Naval Operations (Integration of Capabilities and Resources)(N8), 2013). While the CNO is the head of the Navy, he does not have a monopoly on everything the Navy produces. Another Admiral in the CNO’s staff, in this case N8 must constantly look at what the Navy can afford. In the GP model this is a prime example of where you sit influencing where you stand. The person with an eye on the budget presents an increasingly dire fiscal situation while the head of the Navy presents a challenge ahead, but nothing unsustainable.

There is one more open source report that sheds a bit more light on the beliefs and decision power of the CNO. When the budget was squeezing Navy priorities in the early part of 2014, the CNO made the decision to cut the refueling of the USS *George Washington* to fit more shipbuilding in the Navy’s budget. “That was CNO’s decision and it was based on recent reviews where CNO felt it was more accurate to capture the total cost across the FYDP rather than solely address FY2015” (LaGrone, 2014b). This statement, coming from the CNO’s spokesman, adds credence to the power of the GP model by directly showing how one individual can impact the direction of an organization like the Navy.

There is one more statement attributable to the CNO that exemplifies a government political dynamic. As discussed in the RAM chapter, the Navy has proposed a plan to place 11 guided missile cruisers out of service and into a state of prolonged modernization. While not ideal for the Navy, there may have been ulterior motives behind this proposal than that presented in the RAM chapter. The following is taken from a CRS report to Congress:

> It would not be a “bad thing” if Congress ultimately blocks the Navy from taking half its cruisers out of service next year as long as lawmakers follow a historical pattern of providing the funds to keep the ships

> operating, Chief of Naval Operations Adm. Jonathan Greenert said Wednesday [May 21].
>
> Greenert told reporters the Navy's 2015 budget proposal that includes sidelining 11 of the 22 cruisers for long-term modernization was not an ideal solution but instead driven by spending constraints. If Congress can pay to operate the ships, the Navy will keep active, he said.
>
> "It's not a good idea to put into a modernization availability a ship before it really needs to go in and that is not something we wanted to do but felt we were compelled to do," Greenert said at a breakfast hosted by the Defense Writers Group. "So if the decision is 'no, I don't want you do that, here's the money, continue to operate those ships,' that's not a bad thing."
>
> "We need ships," he added....
>
> "What would be optimal is that we continue to operate (the ships) and then when the time comes bring them in for modernization," he said. "But I need operating money to do that, personnel money, and we don't have that in the funds given to us." (O'Rourke, 2014b)

This statement highlights the value of looking beyond the RAM and focusing on the actions of major players. From where the CNO sits, he views his service's monetary woes as a problem and has sought out a unique way to solve them. This is evidence of both 'problems and solutions' and 'action as political resultant'. The CNO knew he could not fund the operations of the remaining cruisers, yet he is also aware that Congress does not want the Navy to retire any cruisers early. Using this information he found a solution to his problem by planning to lay up 11 cruisers anticipating that the Congress would balk at the proposal and provide funding for at least some of the ships.

D. ASSISTANT COMMANDANT OF THE MARINE CORPS

The next player in the Navy shipbuilding plan sits outside the Navy proper, but inside the Department of the Navy. As Assistant Commandant of the Marine Corps, General John Paxton was appointed by the President and represents issues that the Commandant views as important. Historically the role has involved budgetary decisions. But the biography of General Paxton presents someone whose particular seat at the table and career path has greatly influenced his opinion – a pillar of the GP model. With

service as Executive Assistant to the Undersecretary of the Navy and Amphibious Operations Officer/Crisis Action Team Executive Officer he became intimately familiar with the amphibious side of the Navy. Because acquisition is an important function of the office of the Secretary of the Navy, and the Undersecretary is a member of that office, General Paxton no doubt saw the priority level of amphibious vessels. To this end he has made great efforts to increase the number of the amphibious vessels in the Navy's procurement plan.

General Paxton said, "We have a paucity of amphibious shipping and many of us in the Marine Corps are not happy with it, we are not happy as an institution" (Freedberg, 2014b). In addition, the general has explained how the lack of amphibious vessels has forced the Marines to develop new types of Marine Air-Ground Task Forces or MAGTFs. "The reason we have special-purpose MAGTFs is because we don't have enough amphibs. A challenge we will continue to have over the next decade is the resources/demand mismatch" (Burgess, 2014). These last remarks were made to the Navy League, a group of individuals who see legislative advocacy as one of their most important missions (Navy League of the United States, 2014). These views are also held by the current Commandant of the Marine Corps, the recently confirmed General Dunford, as well as 20 retired Marine generals who wrote an open letter to Congress (Munoz, 2014) (USNI News, 2014). Here, parochial priorities have surfaced in order to further the group's goals and interests.

Yet it appears to be General Paxton who has been the Marines' point man for this issue. Often citing that the CNO and Commandant have already agreed the Navy needs 38 amphibious vessels, he often gives examples showing the versatility, capability and demand of these craft. Because action is a political resultant in the GP model, the Assistant Commandant can negotiate both with the Navy for more vessels and with the Congress. General Paxton has brought his amphibious vessel concern directly to Congress in his statements before the readiness subcommittee of the Senate armed services committee (Paxton, 2014). In his testimony it is evident that the amphibious vessels are his primary interest. Yet ever working in the political realm, General Paxton chooses not to browbeat his counterparts in the Navy but has worked to show he

understands the current fiscal environment. "I would appreciate it if you quote this correctly, I love my Navy shipmates and they have an incredible challenge with capital investments, ok? They've been working very hard and very well in a really resource-constrained environment" (Freedberg, 2014b). These efforts to persuade the Navy yet lobby the people behind the checkbook, Congress, are a fantastic example of politics at play. If the closed door sessions were available it would undoubtedly be more telling.

E. CONGRESSMAN RANDY FORBES

Of course the discussion of the GP model would not be complete without a brief discussion of an elected politician. In this case the limitations still apply, since there are no closed door transcripts that give greater insight into the thinking of our congressional leadership.

Congressman Randy Forbes, a Republican from Virginia's 4th (Forbes, 2014a) district is an excellent example of how politicians play into the long range Navy shipbuilding plan. Congressman Forbes represents a district with tremendous ties to the Navy. With multiple Navy bases and shipyards in the region, he has taken an active role in developing the course of the Navy as the Chairman of the House Armed Services Subcommittee on Seapower and Projection Forces (House Armed Services Committee, 2014).

The Congressman is not afraid to express his opinions. Seeing the writing on the wall for the cost of the *Ohio* class replacement back in 2013, he believes it should be completely removed from shipbuilding budget and put into the defense budget as a whole (LaGrone, 2013). A move like this highlights the gamesmanship of the GP model and just how much where you stand depends on where you sit. There is no one way to solve a problem and though the CNO or Assistant Commandant may only see their small slice of the shipbuilding budget available for procuring ships, Congressman Forbes is willing to make the *Ohio* replacement entirely separate part of the budget. On the refueling of the *George Washington*, Congressman Forbes' subcommittee issued a mark to fence off 50% of the Office of the Secretary of Defenses' budget unless they obligated funds to plan for the refuel (Freedberg, 2014e). Overall, his strategy of what the Navy should look like

was summed up in an article he co-wrote with John F. Lehman, the former Secretary of the Navy who proposed a 600 ship Navy (Lehman & Forbes, 2014).

> To begin with, our Navy must simply build more ships. The Navy says that 306 vessels is the minimum necessary to meet our national-security requirements. Outside experts, like the 2010 QDR National Defense Panel, put the number closer to 350 ships. While technology and maintenance techniques continue to improve, the demand for naval presence and the strain on military families and naval hulls from rapid deployments all place a limit on the classic mantra that the military can do "more with less." A plan that reverses the downward spiral in ship construction is essential to stimulate a new naval renaissance.

Congressman Forbes has acted within his power to make this happen. Unfortunately the budget of the Department of Defense is an often contested political document. To increase it, especially in a certain area such as shipbuilding is not without tradeoffs. Thus, the GP model again provides a solid framework to evaluate government decisions. Political tradeoffs occur and no one person determines the outcome.

While it may seem that Congressman Forbes fights for the Navy in whatever manner available, he has also been one of its outspoken critics. He was one of the first to fault the Navy for changing the method by which it counted ships stating "I am disappointed to see the Navy is now counting ships like Patrol Craft and Hospital Ships in its battle force fleet that only a year ago it chose not to count" (Freedberg, 2014d). The congressman has also faulted the Navy for not thinking strategically and as previously mentioned he was an outspoken member opposed to cutting a carrier (Forbes, 2014b). Though he wields a significant amount of power, he still cannot control every action of the Navy and must do what he can to influence those inside of the Navy. If the Navy perceives Congressman Forbes to hold significant bargaining advantages as well as skill and will in using those advantages, the sea service will most likely acquiesce to some of his demands.

All of these actions and statements play well into defining Congressman Forbes as a player in the GP model. What is perhaps most interesting is that his view of the future Navy does not necessarily match up perfectly with the QDR or the DSG. Sitting where he

does in a military district, he has chosen to focus his efforts that affect not only himself, but his constituency. Where he stands clearly depends on where he sits.

F. SUMMARY OF THE GOVERNMENT POLITICS MODEL

As the organizational behavior model gave new insight into the FY2015 Long Range Plan, so the government politics model provides another perspective. People in high level positions in government, often in charge of a large organization, have significant influence in the outcomes of governmental decisions.

The general proposition that where you stand depends on where you sit rings true throughout this chapter. The CNO is forced to deal with a declining shipbuilding budget but must somehow endeavor to build all manner of naval vessels. General Paxton has the ability to focus on amphibious vessels, while Congressman Forbes can criticize from outside the Navy and attempt to enact legislation to save whatever he feels is essential.

The supposition that action is a political resultant also holds true. Even though the CNO is the head of the Navy, he needs his cruisers to sustain operational commitments. Realizing the only way to keep them may be a plan to put them out of service, the CNO moved forward with such a plan. By showing Congress such an unacceptable proposal and then working with Congress for funding, he was able to avoid laying up all 11 vessels. Similarly, the discussion on refueling the *George Washington* required negotiation and gamesmanship. The CNO proposed the cancellation of the refueling betting that Congress would object to such a move. In both the cruiser and the carrier issue the bargaining advantage was on the side of the CNO. He showed the will to lay up many of his most capable assets and the Congress moved to make sure that this did not occur.

And finally, the fact that the GP model allows for miscommunications, errors, and reticence provides a method for explaining the shift in counting vessels and the omission of a more detailed clarification in the CNO's testimony before Congress. Of course if the omission was intentional, then the GP model also allows for such an action. In the GP model, omissions, negotiations, compromises, and errors are all allowable and in many cases, expected.

VII. CONCLUSION

A. THE EFFECTIVENESS OF THE THREE MODELS

The Annual Long-Range Plan for Construction of Naval Vessels for FY2015 is not a document that is taken lightly. The legal requirements for its production and the supporting documents that guide its construction ultimately shape a plan for the future of the Navy. When it is released it is pored over both inside the government and by those outside with a stake in the matter. Often-times criticism comes swiftly and harshly questions how the Navy could arrive at such a decision; other times supporters of the plan work to ensure it is implemented.

The analysis presented in this thesis reveals that this complex decision is ultimately arrived at through a multifaceted process involving many players and organizations, their interests and goals, organizational routines, rational analysis and political strategizing. Using the rational actor model, organizational behavior model, and government politics model, provides a more complete picture of the decision-making process behind the FY2015 Long Range Plan. Each lens adds further understanding of why and how the Navy arrived at this plan.

The RAM provides understanding of the basic history, requirements, and goals of the annual shipbuilding plan. As a rational actor the Navy developed its requirements and compared them to its current and future capabilities. It took a value-maximizing approach to the allocation of increasingly scarce resource across the decades. Identifying the Ohio replacement as its top priority the Navy then moved to balance the immense cost of the Ohio program against its other identified requirements. Realizing that some trade-offs must occur, the Navy planned to mothball some of its cruiser fleet and potentially cancel the refueling of the USS George Washington. The Navy also changed its ship counting methodology. Because some of these actions do not appear completely rational, other decision-making models can help us understand them. The RAM tells us the decision is the net result of a value-maximizing rational analysis of costs and benefits.

The OB model provides additional insight into how this plan was developed. Evidence of organizational influence both from the internal structure of the Navy and the advocates surrounding the Navy displays how different organizations work to shape the final document based off of their own capabilities, cultures, and missions. The idea that power is not held by one individual and that fractionated power exists across the Navy is displayed in the internal struggle amongst many organizations. Often power is fractioned amongst several organizations who must blend their missions with established routines to reach a decision. For example, N8 must balance resources while N9 has the requirement; within N9 the submariners compete with the aviators who compete with the surface and expeditionary forces. The formal PPBE process establishes standard procedures for holding this competition for resources. Outside the Navy, different lobbying groups rally support for their cause and attempt to champion their ideas to the leaders in the Navy as well as in Congress. The OB model presents a world of fiefdoms where culture and routine control nearly everything. The OB model tells us the decision is the net result of all the several outputs of the different organizations involved and the routines they follow.

And finally, the GP model allows an even more nuanced view of the power players involved with the FY2015 Long Range Plan. Individual players holding varying levels of power and influence, strategize and bargain to shape the future of the Navy. The CNO clearly has expert power and an informational bargaining advantage, but does not have ultimate control over what the future of the Navy will look like. His calculated decision to put the George Washington on the chopping block ultimately resulted in more funding for the Navy. While it might not have appeared rational under the RAM analysis, it becomes more understandable as a government political move. At the same time, General Paxton continues to push the ideas of more amphibious vessels but with much less success. And while the QDR and DSG are often held up as guideposts in the RAM and OB chapters, the GP model was effective in showing that there are some, like Congressman Forbes, who feel that these documents do not go far enough in defining the required capabilities of the armed forces. The GP model tells us the decision is the net result of the forces exerted by all the actors' negotiations and bargaining.

Taken all together these models present a fascinating, complex, and more nuanced look at how the nation decides the future of the Navy. Both the decision-making process and the decision itself are complex. The three models provided different lenses to view the same decision. Apart, no lens presents the entire picture. Ultimately, analyzing any decision from multiple angles will yield new ideas and viewpoints not previously considered. By citing specific examples across the three models this thesis has highlighted the complexity of the document at a level not seen before.

B. FURTHER AREAS OF RESEARCH

The following areas have been identified as potential follow-on areas of research.

1. A Detailed GP Model

By far the biggest limitation with this approach is the lack of primary source data for the GP model. By conducting direct interviews with some of the identified players or performing a narrative content analysis of all public testimony related to the development of the shipbuilding plan using qualitative coding software, it would be possible to gain a behind the scenes view on developing the plan and thereby increase the understanding of the result.

2. A Capabilities Based Approach to the 30-Year Plan

While the capabilities requirement is already conducted at senior levels of government and independent research, it would be interesting to take the specific interests outlined in the DSG and QDR and pair them with the proposed ship procurement cycle to see if there is any correlation.

3. A New Approach to Counting Ships

Identified early on is the problem with counting Navy ships. While few would argue that a destroyer, an aircraft carrier, and a submarine are all Navy ships, the relative combat power and capability vary greatly. Is there perhaps a better way to count Navy vessels?

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF REFERENCES

Aircraft Carrier Industrial Base Coalition. (2014, October 6). Aircraft Carrier Industrial Base Coalition Bylaws. Retrieved October 6, 2014, from Aircraft Carrier Industrial Base Coalition: http://www.acibc.org/join-the-coalition/ACIBC_bylaws.pdf

Allison, G. T. (1971). *Essence of decision: Explaining the Cuban missile crisis*. Boston: Little, Brown.

Allison, G., & Zelikow, P. (1999). *Essence of Decision: Explaining the Cuban Missile Crisis* (2nd ed.). New York: Addison-Wesley Educational Publishers Inc.

Amphibious Warship Industrial Base Coalition. (2014, October 6). About AWIBC. Retrieved October 6, 2014, from Amphibious Warship Industrial Base Coalition: http://amphibiouswarship.org/about/

Bruner, B. (2014, July 31). Conrad Seminar POM/PPBE Brief. Monterey, CA: OPNAV N80.

Bruner, B., & Cockey, M. (2014, February). We Must Have Nuclear Deterrence. *Proceedings*, p. 10.

Burgess, R. R. (2014, October 9). Paxton: Special MAGTFs are "feet dry" for lack of Amphibs. Retrieved November 2014, 2014, from: http://www.seapowermagazine.org/stories/20141009-paxton.html

Buss, D. (2013, *Fall*). From the Air Boss. *The Hook*, p. 4.

Cavas, C. P. (2014a, January 26). Carrier Cut Could Be Back on Table. Retrieved September 26, 2014, from: http://www.defensenews.com/article/20140126/DEFREG02/301270019/Carrier-Cut-Could-Back-Table

Cavas, C. P. (2014b, October 2). Navy Ready for Briefing on Small Surface Combatant. Retrieved November 3, 2014, from: http://www.defensenews.com/article/20141002/DEFREG02/310020034/Navy-Ready-Briefing-Small-Surface-Combatant-SecDef-Not

Clemen, R.T. (1996) *Making hard decisions* (2nd ed.). Belmont, CA: Duxbury Press

Commander, Naval Surface Forces. (2013). Cardinal Headings for Surface Warfare (OPNAV N861M). Washington, DC: Director, Surface Warfare .

Department of Defense. (2014). 2014 Quadrennial Defense Review. Washington, DC: Department of Defense.

Department of the Navy. (2014, November 22). FY15 Data Book. Retrieved November 22, 2014, from Office of the Assistant Secretary of the Navy, Financial Management and Comptroller: http://www.finance.hq.navy.mil/FMB/15pres/FY15_Data_Book.pdf

Deputy Chief of Naval Operations (Integration of Capabilities and Resources) (N8). (2012). Annual Report to Congress on Long-Range Plan for Construction of Naval Vessels for FY2013. Washington, DC: Department of the navy.

Deputy Chief of Naval Operations (Integration of Capabilities and Resources)(N8). (2013). Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels for FY2014. Washington, DC: Department of the Navy.

Deputy Chief of Naval Operations (Integration of Capabilities and Resources) (N8). (2014). Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels for FY2015. Washington, DC: Navy Pentagon.

Forbes, R. J. (2014a, November 12). About Randy. Retrieved November 12, 2014, from: http://forbes.house.gov/biography/

Forbes, J. R. (2014b, October 6). Document: July letter from Rep Randy Forbes to CNO Adm. Jonathan Greenert on 'Deficit of strategic thinking'. Retrieved November 12, 2014, from: http://news.usni.org/2014/10/01/document-july-letter-rep-randy-forbes-cno-adm-jonathan-greenert-deficit-strategic-thinking

Forbes, R. J. (2014c, March). Revitalize American Sea Power. *Proceedings*, pp. 16–20.

Franz, L. S., & Kramer, M. W. (2010). The Dimensions of Decisions: A Conceptual and Empirical Investigation. In P. C. Nutt, & D. C. Wilson, Handbook of Decision Making (pp. 517–540). Hoboken, NJ: John Wiley & Sons.

Freedberg, S. J. (2014a, February 14). Can New Amphibious Ship Coalition Grow Grass Roots. Retrieved October 6, 2014, from: http://breakingdefense.com/2014/02/can-new-amphibious-ship-coalition-grow-grass-roots/

Freedberg, S. J. (2014b, October 2). LCS, JHSV 'marginal' for Marine ops: Gen Paxton. Retrieved November 12, 2014, from: http://breakingdefense.com/2014/10/lcs-jhsv-marginal-for-marine-ops-gen-pexton/

Freedberg, S. J. (2014c, July 8). Navy Finally, Admits It Can't Afford Fleet, Esp. New SSBNs. Retrieved October 3, 2014, from: http://breakingdefense.com/2014/07/mission-unsustainable-navy-officially-admits-it-cant-afford-future-fleet/

Freedberg, S. J. (2014d, March 11). Outrage on Capitol Hill as Navy Changes Ship-Counting Rules. Retrieved September 26, 2014, from:

http://breakingdefense.com/2014/03/outrage-on-capitol-hill-as-navy-changes-ship-counting-rules/

Freedberg, S. J. (2014e, April 29). Rep. Forbes Vows to keep 11 carriers, 'still working' on cruisers, UCLAS. Retrieved November 29, 2014, from: http://breakingdefense.com/2014/04/rep-forbes-vows-to-keep-11-carriers-still-working-on-cruisers-uclass/

Fuquea, D. (2014, March). Sustaining Our Amphibious Capability. *Proceedings*, pp. 22–28.

Goggins, D. (2014, Spring). Question and Answer with CAPT David Goggins. *Undersea Warfare*, pp. 16–18.

Gorry, G.A., & Morton, M.S. (1971). A framework for management information systems. *Sloan Management Review*, 21–36

Grady, J. (2014, March 6). U.S. Pacific Commander Defends 11 Carrier Navy. Retrieved October 4, 2014, from U.S. Naval Institute News: http://news.usni.org/2014/03/06/u-s-pacific-commander-defends-11-carrier-navy

Greenert, J. (2014). Statement of Admiral Jonathan Greenert before the House Armed Services Committee on FY2015 Department of the Navy Posture. Washington, DC: House Armed Services Committee.

Greenert, J. W. (2012, March 12). OPNAV Realignment. Retrieved November 5, 2014, from Navy Personnel Command: http://www.public.navy.mil/bupers-npc/reference/messages/Documents/NAVADMINS/NAV2012/NAV12083.txt

Hammond, James. (2013, February). A Fleet out of Balance. *Proceedings*, pp. 38–43.

Hammond, John (1999). *Smart choices*. New York: Broadway Books.

Hicks, A., & Grecco, A. (2014, February). Aegis: A Continuum of Excellence. *Proceedings*, pp. 46–51.

Hoeft, W. (2013, June). Deterrence- Now More than Ever. *Proceedings*, pp. 26–31.

House Armed Services Committee. (2014, November 12). Seapower & Projection Forces . Retrieved November 12, 2014, from House Armed Services Committee: http://armedservices.house.gov/index.cfm/seapower-projection-forces

LaGrone, S. (2013, September 25). Interview: Randy Forbes on sequestration, the Navy, and China. Retrieved November 12, 2014, from: http://armedservices.house.gov/index.cfm/seapower-projection-forces

LaGrone, S. (2014a, July 15). Navy Cancelled New Destroyer Flight Due to Ohio Replacement Submarine Costs. Retrieved October 3, 2014, from: http://news.usni.org/2014/07/14/navy-cancelled-new-destroyer-flight-due-ohio-replacement-submarine-costs

LaGrone, S. (2014b, April 3). Navy: Decision to Pull Unfunded Carrier fueling Request was CNO's Choice. Retrieved September 27, 2014, from: http://news.usni.org/2014/04/03/navy-decision-pull-unfunded-carrier-refueling-request-cnos-choice

LaGrone, S. (2014c, Jul 8). Report: Navy's 306 Ship Goal Faces Multiple Obstacles. Retrieved September 27, 2014, from: http://news.usni.org/2014/07/08/report-navys-306-ship-goal-faces-multiple-obstacles

LaGrone, S. (2014d, February 13). WEST: Cutting Carriers Will Put More Stress on Sailors. Retrieved October 4, 2014, from: http://news.usni.org/2014/02/13/west-cutting-carriers-will-put-stress-sailors

Lehman, J. F., & Forbes, J. R. (2014, September 2). American Seapower for the 21st century. Retrieved November 2014, 2014, from National Review Online: http://m.nationalreview.com/article/386777/american-seapower-21st-century-john-f-lehman-j-randy-forbes

Long-range plan for construction of naval vessels. (2010). 10 U.S.C. § 231.

Manazir, M. (2014, February). Responsive and Relevant. *Proceedings*, pp. 16–21.

Manvel, T., & Perin, D. (2014, May). Christened by Champagne, Challenged by Cost. *Proceedings*, pp. 42–47.

Munoz, C. (2014, July 22). Dunford Backs Building 12th San Antonio-class warship. Retrieved November 12, 2014, from: http://news.usni.org/2014/07/17/dunford-backs-building-12th-san-antonio-class-warship

Naval Sea Systems Command. (2014 , November 7). About NAVSEA. Retrieved November 7, 2014, from Naval Sea Systems Command: http://www.navsea.navy.mil/AboutNAVSEA.aspx

Naval Sea Systems Command. (2014, September 29). Fleet Size. Retrieved September 30, 2014, from Naval Vessel Register: http://www.nvr.navy.mil/nvrships/FLEET.HTM

Naval Submarine League. (2014, October 29). Naval Submarine League Home. Retrieved October 29, 2014, from Naval Submarine League: https://nasl.memberclicks.net/

Navy League of the United States. (2014, November 12). Legislative Affairs. Retrieved November 12, 2014, from Navy League of the United States: http://navyleague.org/legislativeaffairs/

O'Hanlon, M. E. (2009). *Budgeting for hard power*. Washington, DC: The Brookings Institution Press.

OPNAV N8. (2013). Naval Combatant Vessel Force Structure Requirement. Washington, DC: Department of Defense.

O'Rourke, R. (2014a, May 13). JHU/APL Submarine Technology Symposium. *The Submarine Review*, pp. 8–19.

O'Rourke, R. (2014b). Navy Force Structure and Shipbuilding: Background and Issues for Congress. Washington, DC: Congressional Research Service.

Panetta, L. (2012). Sustaining U.S. Global Leadership: Priorities for 21st Century Defense. Washington, DC: Department of Defense.

Paxton, J. M. (2014, March 26). Statement of General John M. Paxton, Jr, Assistant Commandant of the Marine Corps before the Readiness subcommittee of the senate armed services committee on readiness. Washington, DC: Senate Armed Services Committee.

Rowden, T. (2014, January). Building the Surface Fleet of Tomorrow. *Proceedings*, pp. 22–27.

Rowden, T. (2014, January 14). U.S. Surface navy priorities updated. Retrieved November 7, 2014, from Navy Live: http://navylive.dodlive.mil/2014/01/14/u-s-surface-navy-priorities-updated/

Schwartz, M. (2013). Defense Acquisitions: How DOD acquires weapon systems and recent efforts to reform the process. Washington, DC: Congressional Research Service.

Secretary of the Navy. (2014, March 7). General Guidance for the Classification of Naval Vessels and Battle Force Ship Counting Procedures. Washington, DC: Department of the Navy.

Submarine Industrial Base Council. (2014, October 6). The Submarine Industrial Base Council Mission. Retrieved October 6, 2014, from: http://www.submarinesuppliers.org/about/mission.php

Sinek, S. (2011). *Start With Why*. New York: Penguin.

Snodgrass, G. (2013, September). Naval Aviation's Transition Starts with Why. *Proceedings*, pp. 16–21.

Stackley, S. (2013, February). Shipbuilding is a Priority. *Proceedings*. p. 139

Surface Navy Association. (2014, October 4). Surface Navy Association Home. Retrieved October 4, 2014, from: http://www.navysna.org/

Tofalo, J. E. (2014, Winter). Division Director's Corner. *Undersea Warfare*, p. 2.

U.S. Fleet Forces Command. (2014, November 7). About USFF- our missions, history, and other info about us. Retrieved November 7, 2014, from United States Fleet Forces Command: http://www.cffc.navy.mil/

United States Marine Corps. (2014). Amphibious Ready Group and Marine Expeditionary Unit Overview. Washington, DC: United States Marine Corps.

United States Marine Corps. (2014, November 12). Assistant Commandant of the Marine Corps. Retrieved November 12, 2014, from Headquarters Marine Corps: http://www.hqmc.marines.mil/acmc/Biography/tabid/10910/Article/553847/general-john-m-paxton-jr.aspx

United States Navy. (2014, November 7). Chief of Naval Operations Bio. Retrieved November 7, 2014, from Navy.mil: http://www.navy.mil/navybio_ldr.asp?id=130

United States Navy: Composition; Functions. 10 U.S.C § 5062 (2010).

USNI News. (2014, March 27). Twenty former Marine generals want more money for amphibs. Retrieved November 12, 2014, from USNI News: http://news.usni.org/2014/03/27/twenty-former-marine-generals-want-money-amphibs

Wilson, G. C. (2000). *This war really matters*. Washington, DC: CQ Press.

Work, R. O. (2007). Numbers and Capabilities: Building a Navy for the Twenty-First Century. In G. J. Schmitt, & T. Donnelly, Of Men and Materiel: The Crisis in Military Resources (pp. 82–113). Washington, DC: American Enterprise Institute for Public Policy Research.

Wynn, D. (2011, Spring). How a Vendor Helps Keep the Virginia Class Affordable. *Undersea Warfare*, pp. 14–15.

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
   Ft. Belvoir, Virginia

2. Dudley Knox Library
   Naval Postgraduate School
   Monterey, California